



Tulare County Parks Advisory Committee

**Committee
Members**
Mike Chrisman
Carol Finney
Karol Aure-Flynn
Aaron Gomes
Nancy Hawkins
Neil Pilegard
Courtney Roche, Jr.

MINUTES

November 10, 2015

03:00 P.M. Committee Convenes

NOTICE TO THE PUBLIC PUBLIC COMMENT PERIOD

At this time, members of the public may comment on any item not appearing on the agenda. Under state law, matters presented under this item cannot be discussed or acted upon by the Board at this time. For items appearing on the agenda, the public is invited to make comments at the time the item comes up for Board consideration. Any person addressing the Board will be limited to a maximum of three (3) minutes so that all interested parties have an opportunity to speak. At all times, please use the microphone and state your name and address for the record.

Present Members: Mike Chrisman, Carol Finney, Karol Aure-Flynn, Aaron Gomes, Nancy Hawkins, Neil Pilegard, Courtney Roche Jr.
Absent Members: None.
Staff Present: John Hess, Amy King

1. Call to order: The committee was called to order at 3:01 p.m. by Mr. Chairman Mike Chrisman.

2. Welcome: Chairman Chrisman welcomed everyone and the committee introduced themselves as well as the public members in attendance. Chairman Chrisman stated that the approval of minutes and agenda need to be added to the current agenda.

Committee member Hawkins motioned and Committee member Gomes seconded that the minutes from the previous meeting on October 13 be approved. Motion carried unanimously.

3. Advisory Committee Public Meeting Procedures: Chairman Chrisman stated that the key is to be open and transparent and engage the audience and monitor conversations. He further explained that he would like to see the meetings run as follows: have a public comment section

to address anything that is not on the agenda, then as the committee moves through the agenda address the items at the time they are presented. Questions need to be on specific items on the agenda so conversations don't get off topic. Committee member Gomes suggested a time limit and Chairman Chrisman agreed and also added that there should be some flexibility within a reasonable expectation.

4. Public Comment: At a later point in the meeting John Rodgers submitted a document with the statements he would like entered under the public comment section. This is entered as Exhibit A.

5. Visalia Feral Cat Coalition TNR Presentation: John Hess introduced the Visalia Feral Cat Coalition presentation and read through the agenda item that was prepared for today's agenda. This is an opportunity to ask questions and get clarity there is no action item for this agenda item. Chairman Chrisman asked if there are any specifics on these programs. Members of the Coalition indicated that it is in their report.

The Feral Cat Coalition distributed a packet of information to support their presentation to the committee members. This is entered as Exhibit B.

Dr. Kuswa introduced herself and stated that she has worked with the Valley Oak SPCA and other veterinary hospitals in the area. Dr. Kuswa presented the following information: She agrees that the park is for people and not animals and would like to achieve that goal in a cost effective way. The breeding cycle is a problem for female cats and causes male cats to fight. This can be a nuisance. There is a food source for example open trash cans and picnics and they have shelter. The mobile home park neighboring the park has a lot of cats as well. The Visalia Feral Cat Coalition is working with the residents of the mobile home park to control the population there as the source. Trapping and euthanizing the cats will not work because then other cats will come into the colony. It is costly to euthanize. It costs 120-140 dollars to house them and then euthanize them. She stated that a public poll showed 81% think that feral cats should be left alone and 14% agree with trapping and killing the cats. It cost 500-5000 dollars to take feral cats to a cat haven. She states that relocation does not work. To date they have sterilized 42 cats from Mooney Grove Park. There was an estimate of 87 cats at Mooney Grove Park, now there are 12 cats. She says that this project is cost free to the county and taxpayers.

Chairman Chrisman asked if TNR is the most effective way to control cat population. Dr. Kuswa says yes it has been nationally proven. Leading authorities of shelter medicine have offered to come and speak that are experts in the field. Chairman Chrisman followed up with a question, asking if other local parks are dealing with this issue and using this program as a solution? Dr. Kuswa was unaware. She stressed the public opinion of being against catching and killing the cats.

Chairman Chrisman asked if once people get word of this program, will they dump their animals? Dr. Kuswa says she has not heard of that happening, further explaining that people are looking for the easiest place to dump cats and not thinking clearly. Dr. Kuswa thinks people will dump them at the park if they are able.

Committee member Aure-Flynn asked who is funding this program. Dr. Kuswa said that she is personally funding this program to prove that it works. It is important to Dr. Kuswa to see change in the way in the way that animals are handled and that she included a contract in the presentation packet that was distributed. They are looking to work with everyone. Committee member Aure-Flynn asked for the proposal of a next step. Dr. Kuswa says that she would like more cooperation with park staff.

Committee member Hawkins asked if this program would be ongoing, and Dr. Kuswa says yes. Committee member Hawkins then asked what happens when Dr. Kuswa is not around to fund the project. Dr. Kuswa says that she is trying to get other vets to help out in this process and she needs more involvement. She wants to show the way. Valley Oak SPCA offered to sterilize feral cats for 15 dollars to support their program.

Committee member Aure-Flynn asked what the official structure is and what the relationship to the humane society is.

Karen Kent VP of the Visalia Feral Cat Coalition stated that they have a board of directors, members, and volunteers. The Coalition has established a relationship with the Valley Oak SPCA to pay for half of sterilizations and the Coalition does fundraisers and events to allocate money to TNR as well as provide food for colonies. The Coalition wants to ensure that the animals stay healthy as they work with this program. They are a young organization and have built a strong business plan/organization and are looking to continue the project long term. Ms. Kent confirmed that they are a 501(c)(3).

A packet of information was distributed to the committee, which included a copy of a contract drafted by Tulare County and the coalition is looking to move forward to finalize a contract with the county.

Chairman Chrisman asked if the Coalition is comfortable with the cat population count at Mooney Grove Park. Dr. Kuswa said that it is pretty accurate. Chairman Chrisman asked why the park population is so difficult to control. Dr. Kuswa said that transient people leave the cats and that creates a perfect storm for the cats.

Committee member Gomes asked why the committee is considering a contract that was already submitted by the county.

John Hess stated the following: The County issued the contract, but then there was an incident and it was revoked. County Counsel had some issues with the contract that was given to the Coalition. The contract is not on the table for tonight or in the future. The purpose of this presentation was to render further feedback.

Chairman Chrisman asked if the Board of Supervisors wants a recommendation from the committee. John Hess responded yes.

Chairman Chrisman would like to see a staff recommendation at the next meeting. He would like clarification regarding the agreement between the Coalition and the County. He would like to get a contract formalized and then make a motion at the next meeting.

Committee member Finney asked how big the problem really is and how many cats can the Coalition deal with. Dr. Kuswa said that at least 80% of the population needs to go through TNR for the program to be effective.

The Coalition started program in summer of 2013 and there were 87 cats at the park. They were asked to stop so they went to the mobile home park to conduct the program.

Lindell Yoshimura asked if the Coalition was going to do a contract with each entity. Dr. Kuswa said that they don't need to have one. Chairman Chrisman said that it would be helpful to have one in this case, so that there is clarity on who is responsible for what. Committee member Gomes wanted confirmation that it will be for Mooney Grove Park only and not the mobile home park.

John Hess clarified that the contract would be needed for liability issues. The county does not want to get sued for actions of the Coalition. Committee member Gomes stated the next step of a formal document to vote on is needed.

Committee member Finney stated that the committee addresses all county parks and asked if there was this problem in other parks aside from Mooney Grove. Dr. Kuswa said that she would like to conduct the program in other parks, specifically Cutler Park.

Committee member Hawkins asked if the Coalition has the man power to conduct this large scale project. Dr. Kuswa says yes they do.

Chairman Chrisman motioned that the committee will revert back to County staff for review and staff will provide a report at the next meeting. Committee member Aure-Flynn seconded and the motion was carried.

*Committee breaks for 5 minutes.

6. Mooney Grove Park Well Status: Kyle Taylor from Capital Projects gave the following report: The Board of Supervisors declared Mooney Grove well an emergency. The Mooney Grove Park well was drilled first and had casing installed then moved on to other wells. The casing collapsed and then another well had to be drilled at Mooney Grove Park. Two other wells needed to be drilled before returning to do another at Mooney Grove Park. Pressure tank, pump, pad, and fence are all being installed. Piping to connect to domestic well is done and expect that in three weeks the irrigation portion will be working but domestic will take longer to go through testing. There are two separate pumps.

Chairman Chrisman asked why the casing collapsed. Mr. Taylor said that there was a defect in the casing.

John Rodgers asked how deep the well is being drilled. Mr. Taylor stated the well was drilled to 600 feet and pumps at 300 feet.

7. Mooney Grove 20 Year Conceptual Master Plan: John Hess read through the agenda item prepared regarding the 20 year plan. There is no action item here, it is on the agenda for discussion purposes only.

Committee member Pilegard distributed handouts regarding the best management practices for the geese population control. This is entered as Exhibit C.

Committee member Pilegard stated the following: He has tried several techniques and has been unsuccessful. There are issues with trapping and relocating geese, their health has to be guaranteed and a willing host. Building a four foot fence around the pond is a possibility, but probably not effective.

Chairman Chrisman said that the only thing that has worked is capturing the eggs and destroying them.

Committee member Roche asked when the geese lay eggs. Committee member Pilegard replied late February through late April.

Catherine Doe asked about reaching out to other places with similar problems. John Hess said that they are reaching out to these groups and waiting for more conversations.

Committee member Aure-Flynn said that there is no silver bullet and a long sustainable program to control the geese population is needed.

Committee member Gomes asked about possibly finding a host water fowl club. Possibly rounding up the geese once and diminishing the population that way.

Committee member Pilegard said that the cost would need to be addressed and then go from there, but relocating is only short term as they will return.

Committee member Aure-Flynn stated that a program should be started so that something is being done. The first step to take is to put something in place and the OvoControl-G sounds like a good way to start.

John Hess asked Committee member Pilegard what is realistic in expectations for information and starting this project.

Committee member Pilegard said that he can have costs and more information to provide to the committee at the next meeting. He has the license that he needs to conduct this program.

Committee member Aure-Flynn would like to know of a starting place for assessing the measureable standard that they are working with as far as the geese population.

Kevin Caskey said that the Tulare County Audubon Society does annual counts and maybe they will be willing to conduct a bird count at Mooney Grove Park. Mr. Caskey also asked if the product be available through the AG Commissioners Office?

Committee member Pilegard will need to find the distributor and get it from them.

John Hess and Committee member Pilegard met with John Rodgers at the park. Since the last meeting six pickup truck loads of milfoil have been removed from the pond. It is worked on daily by staff and SWAP workers. Committee member Pilegard put lake dye into the pond that blocks out sunlight that the plant needs to grow.

The fence at the front of Mooney Grove Park has been repaired. There was some input at a previous meeting about putting a fence around the entire park. There were comments in support and otherwise.

Chairman Chrisman asked if the pricing for a fence around the entire park was obtained. Committee member Pilegard said no and he could get an estimate easy enough. Chairman Chrisman asked if this is a priority. Committee member Pilegard said no, if someone is going to get in a fence won't stop them. Gates were put in to the fence along the front of the park to prevent damage to the fence.

The committee agreed that a fence is not as high on the priority list as other things such as the geese and pond.

Chairman Chrisman stated that it is important to continue to address these issues and at some point we need to do a walk through at Mooney Grove Park.

8. Proposed Health Advisory Committee Smoking Ban in County Parks: John Hess read through the agenda item prepared for this agenda item to familiarize the committee with the brief overview of the topic and the expectation of the committee. John Hess introduced Jose Ruiz-Salas from HHSA. Committee member Pilegard expressed some concerns about banning smoking from all county parks. If there is a law in place that discourages people to come to park, he thinks that it will be counterproductive. His recommendation is that we put together a survey to be handed out to park visitors. Chairman Chrisman suggested that we ask around other parks that have instituted this in California to see how to enforce and implement this ban.

Jose Ruiz-Salas supports the Health Advisory Committee and presented the following information: He did research on other counties, the response has been that people understand and very few times that it goes to citation. The ordinance is enough to cut it out. The reason for going smoke free is that these spaces are for family and children and it is health concern. Exeter has gone smoke free at the parks. They have not seen and decrease and even small increase of visitors.

Committee member Pilegard indicated that he had polled 100 people asking their opinion on banning smoking in the park and 20% said that they smoke and are not in favor of the ban on smoking, 5% said they don't smoke and do favor the ban, 20% said they don't smoke and don't favor the ban, 55% said they don't smoke and don't care whether or not there is a ban on smoking in the park.

Committee member Gomes asked if there is a dedicated smoke free zone. Mr. Ruiz-Salas said that there is a 20 foot perimeter around play structures and entrances to buildings.

Committee member Aure-Flynn asked if smoking is a problem in the parks. Committee member Pilegard said that it is not a problem.

Committee member Gomes said that perhaps signs need to be posted and that he was unaware of the ban that is currently in place.

Julietta Martinez stated that one of the Board of Supervisors sits on the Health Advisory Committee and that is why it was brought to the board. The board was divided and sent it to the Parks Advisory Committee to research and provide feedback.

Committee member Aure-Flynn is wondering if the committee is the best to give advice on this topic and that it is too nonspecific.

Chairman Chrisman said there needs to be something more quantifiable to researching this topic.

Mr. Ruiz-Salas said that he can do a presentation with a proposal at a future meeting.

Committee member Hawkins said that she agreed with the survey suggested by Committee member Pilegard. Chairman Chrisman advised against that as he feels the results can be inaccurate.

Amy Shuklian said that the City of Visalia went through the same issue and shared the following information: The parks and recreation commission met and then staff did research and reported. Recommendations were made to city council and a decision was made. She offered to share any info that they have gathered and indicated that it is difficult to enforce the smoking ban.

John Rodgers agrees with Committee member Pilegard that banning smoking in a park of that size is a tyranny of the majority.

9. Parks manager update: Committee member Pilegard provided an update regarding all ten County parks. List of update entered into record as Exhibit D. Catherine Doe asked about the cost of the arbor at Kings River replacement (\$72,000 and \$10,000 deductible). New grills and benches in the amount of approximately \$50,000. What about the one time million dollar funds allocated? Those will be identified as the Committee investigates the current maintenance issues. At the previous meeting the committee members inquired about the lease agreement for Bartlett Park. Committee member Pilegard distributed copies of the lease agreement to the committee at this time. This is entered as Exhibit E.

10. Role of the Parks Advisory Committee

11. Committee member matters & Next meeting

December 8, 2015 at 3:00 PM. At the same location/room.

12. Adjournment: Chairman Chrisman adjourned the meeting at 5:05 PM.

Exhibit A

November 10, 2015

Ducks and Geese

Hopefully a plan has been developed that will alleviate the problem.

Lake

There are a few aquatic herbicides that will eliminate the algae and moss from the lake. One is Copper Sulfate crystals that can be added to the water. This may be harmful to the fish, but will not damage the lawns.

The lake may need to be drained and cleaned. The fish will need to be replaced after cleaning. Paraquat has been suggested as an alternative that wouldn't harm the fish, but I'm a little skeptical about that.

Weeds

There is a lot of Malva weed coming on. Weed control will be an issue as we get into winter. Only one park employee is licensed to use herbicides. It would be beneficial if most park employees took the test and were permitted to use herbicides. There is a product called Treevix that is very effective in controlling Malva weed.

Understaffing

The Park only has three regular employees plus the park manager and superintendent. Community service people have been used over the years, but are not as available due to changes in sentencing guidelines. Apparently, there are some still available, as I see them occasionally sweeping goose droppings off the sidewalks.

The park is grossly understaffed leaving the park with an unkempt appearance. I also believe that employee man-hours need to be better managed. Work plans should be made at least weekly if not monthly, subject to unforeseen emergencies. A log of park activity should be kept daily, including watering schedule, any problems with irrigation systems, lawn mowing, damage to park property, including repair time, special events held, and planned projects started, etc.

Conclusion

These are only a few of the problems pertaining to the park that need to be addressed. To bring the park up to a respectable standard is going to take a commitment of resources from the Board of Supervisors, a dedication of the people responsible for the park, the input of this commission, and the help of people within the community that share a concern for the wellbeing of Mooney Groove Park.

Exhibit B

11/10/15

Presentation to the County

Advisory Committee

On

Management and Control of Feral Cat Populations

By

Visalia Feral Cat Coalition

1.

- Management and Control of Feral Cat Populations

2.

- Agreement-Parks are for people not for cats
Disagreement-What is the best way to accomplish this common goal

3.

- Why do we have this problem?
- Prolific breeders
- Females can have their first estrus cycle at 6 months
- Continuous estrus cycle until bred
- Induced ovulation
- Feral cats average 1.4 litters per year
- With an average of 3.5 live births per litter

This equals 4.9 kittens from each female feral cat per year

75% of feral kittens die or disappear before 6 months

(Nutter,2004)

4.

- Why Mooney Grove Park?
- Food source- open trash cans at the park and local restaurants, picnickers.
- Shelter-Trees , bushes and poorly maintained building
- Source of cats-Mooney Grove mobile home park
- 175 trailer spaces
- No regulations on the number of cats or if they must be kept inside or altered

5.

- What doesn't work
Trap and euthanasia

- *For over 50 years as a nation we have used euthanasia as a form of population control. Its never worked and it never will.*
- Vacuum effect (Alley Cat Allies fact sheet)
- Low level culling or sporadic trapping can actually increase the feral cat population from 75%-211% (Wildlife Research, 2014)
- Costly \$120-\$140 per animal, feral cats must be held 2 days before euthanasia
- Labor intensive

6.

- What doesn't work
Trap and euthanasia
- Public opinion
- 10-12% of the population feed feral cats (Levey, 2004)
- 81% think feral cats should be left alone, 14% trap & kill, 5% other (Harris interactive, 2007)
- 7 out of 10 pet owners feel animals should only be killed due to disease or aggression not as animal control (Petside poll)

7.

- What doesn't work
relocation
- **WHERE????????????**

8.

- Successful TNR Programs
COS
- **NORTH COLONY 9/2010 75% Decline**
- Total Sterilized-16 Current Colony-4

SOUTH COLONY 12/2013 48% Decline

- Total Sterilized-31 Current Colony-13 + Unaltered-3
- **NORTHEAST COLONY 9/2014 1% Increase**

- Total Sterilized-11 Current Colony-11 + Unaltered-2
- **NEW COLONY 2/2015**

Total Sterilized-21 Actual numbers unknown

9.

- Mooney Grove County Park
&
Mooney Grove Mobile Home Park

10.

- Mooney Grove Park
Summary
- Start of TNR 2013
- Estimate of the number of cats 87, mostly at the museum & bridge area
- Now
- Bridge cats 10
- Museum cats 2
- Recent changes 3 new cats-1 male, 2 female (one of which is pregnant)

11.

- Mooney Grove Mobile Park
Survey

12.

- Mooney Grove Area
- SUMMARY
- 139 Altered 39 Removed 28% Immediate Decline
- 66 female s $66 \times 1.3 = 85.8$ new kittens
- Cost to the County/City/Taxpayer=0
- If taken to the shelter cost =\$120-\$140 per cat
- Total cost would be \$16,680.-\$19,460

- 2013 VOSPCA received
- 551 feral cats +1,738 pet cats=2,289 were euthanized
- Taxpayer cost=\$120./cat=\$274,680.

MOONEY GROVE PARK

FERAL CAT NEUTER AND RETURN PROJECT

Started 10-2014

By Visalia Feral cat coalition

Altered animals

	Male	Female	Euthanasia	Adopted/Removed
Mooney Grove Park	14	28	2	21
Mooney Gove Mobile Home Park	59	38	2	12
Total	73	66	4	33

Important points:

1. At the Mooney Grove location a total of 139 cats/kittens were altered, 37 cats/kittens were removed through adoption or euthanasia. This is an immediate decrease in the cat population of 26.6%.

If these cats were taken to either Valley Oak SPCA or the Tulare County Shelter the cost would be around \$120-\$140 per animal, for a total \$16,680-\$19,460. The law mandates that all feral cats must be held for 48 hours at considerable cost to the taxpayers and safety risk to the shelter personnel.

2. There were 66 females altered. A female cat will have two litters per year, with five kittens per litter. That means that 66 females will produce 660 kittens per year about 70% will die before they reach one year so that's a net gain of 198 cats.



Managing Community Cats

A Guide for Municipal Leaders



THE HUMANE SOCIETY
OF THE UNITED STATES

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THE HUMANE SOCIETY
OF THE UNITED STATES

FOREWORD

Few animal-related issues facing local leaders are potentially more difficult and time-consuming than those involving un-owned cats in the community. Complaints or concerns regarding cats often represent a disproportionate share of animal-related calls to elected officials and local animal care and control agencies.

“Community cats” are typically un-owned or semi-owned cats, comprised of both strays (lost and abandoned former pets who may be suitable for home environments) and ferals (extremely fearful of people and not welcoming of human attention, making them unsuitable for home environments), who are the offspring of other feral or stray cats. Some community cats can be considered loosely owned, meaning that concerned residents feed them and may provide some form of shelter in their own homes or on their own property, but do not always identify the cats as their own personal pets.

This guide examines the role of community cats (sometimes called free-roaming cats) in cat overpopulation and the concerns shared by officials, animal care and control agencies, and constituents about these animals. It provides recommendations for strategies to manage community cat populations.

This guide can assist municipal leaders in evaluating the presence of cats in their communities and determining how to address these populations effectively.



WHY THIS GUIDE IS IN YOUR HANDS

Local officials and agencies are mandated to protect public health and safety by managing animal control issues such as zoonotic diseases, nuisance animals, and animals running at large. Agencies also commonly receive calls from constituents about community cats.

The issue of managing community cats can create unnecessary conflict. Dissent often arises among neighbors; between cat advocates and wildlife advocates; and among animal care and control leaders, local government leaders, and their constituents.

Often excluded from animal care and control budgets and mandates, community cats might not be managed by field officers who neither have the training to handle them nor a holding space to house them. Whether by choice or regulation, many animal care agencies deal with community cats only when there is a specific nuisance complaint about them or concern for their welfare.

In past decades, many local governments approached community cat populations using solutions like trap and remove, which usually involves killing the trapped cats. Those conventional approaches are now widely recognized as mostly ineffective and unable to address the larger community animal issue. New research (Hurley and Levy, 2013) reveals that this non-targeted, selective response to a population which is reproducing at high rates doesn't help

to reduce cat populations and nuisances in our communities, improve cat welfare, further public health and safety, or mitigate the real impact of cats on wildlife.

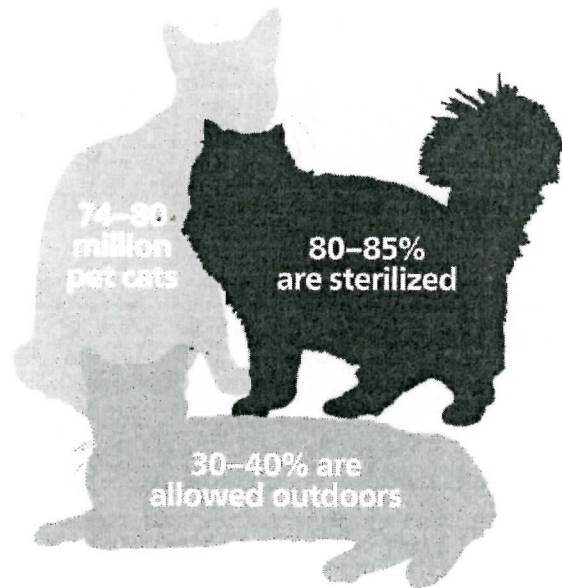
Instead, sterilization and vaccination programs, such as trap-neuter-return (TNR), are being implemented to manage cat populations in communities across the country. Well-managed TNR programs offer a humane and proven way to resolve conflicts, reduce population, and prevent disease outbreaks by including vaccinations against rabies and other potential diseases. This guide provides you with the tools and information you need to implement a well-planned and effective community cat management program.

"A well-managed TNR program will provide both cost control as well as long-term, community cat population control for a municipality. In Somerdale, we recognize this value and the positive impact it will have on our animal and residential population. We also recognize that this proactive approach is the most humane and effective means by which we can care for and manage our community cat population."

—Gary J. Passanante, Mayor,
Borough of Somerdale, NJ

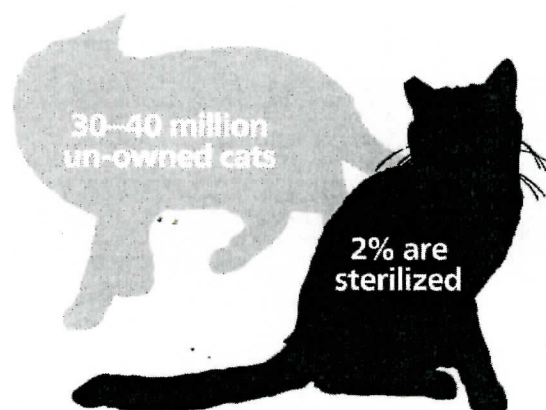
WHY ARE THERE SO MANY CATS?

Cats are the most popular pet in the United States according to the American Veterinary Medical Association's 2012 *U.S. Pet Ownership & Demographics Sourcebook* (AVMA 2012). Approximately 30% of households own cats, and overall owned cat numbers have been increasing as the number of households in the U.S. rises. The majority (approximately 85%) of owned cats have been spayed or neutered, but they may have had one or more litters—intended or accidental—before being sterilized. In underserved communities, rates of sterilization in owned cats tend to be much lower, with cost and transportation being the biggest barriers. Accessible spay/neuter services for cat owners are critical for the overall welfare and management of cats. Approximately 65% to 70% of owned cats are kept indoors at least at night, and this trend has been on the rise, up from approximately 20% in the 1970s (APPA 2012).



Un-Owned Cats

Unsterilized community cats (un-owned or semi-owned) contribute about 80% of the kittens born each year and are the most significant source of cat overpopulation (Levy & Crawford, 2004). Estimates vary greatly for the number of community cats in the United States, ranging all the way from 10 to 90 million (Loyd & DeVore, 2010). The limited evidence available indicates that the actual number may be in the 30–40 million range (Rowan, 2013). The real problem is that only about 2% of them are spayed or neutered (Wallace & Levy, 2006) and continue to reproduce generations of outdoor cats. For this reason, large-scale and targeted reproductive control of community cats is critical to reduce cat populations in your community.



“When cat populations are present, the choice is not between having cats or not having cats. The choice is between having a managed community cat population, or an unmanaged one.”

—Bryan Kortis, Program Manager,
PetSmart Charities, Phoenix, AZ

Community cat population numbers are greatly affected by the community in which they live. Human demographics, types of land usage, climate, presence of predators, and availability of resources all affect the cat population and determine how many cats can be supported in a given area. Population estimates vary greatly and provide only a loose number that can be further

refined as program work takes place. Experts differ on recommended calculations, with a range of formulas from human population divided by six (Levy & Crawford, 2004), to human population divided by 15 (PetSmart Charities, 2013). For a mid-range estimate of the number of community cats in your area, divide your human population by 10. This estimate is exactly that—an estimate. Cold weather areas with freezing temperatures or locales with robust predator populations that limit survival, may have fewer cats than estimated, while rural areas with lots of barns and farms may have more than estimated. Warm climates tend to support larger populations of cats. Densely populated areas with shelter and adequate food sources for outdoor cats may have very large concentrations or relatively few cats depending on the neighborhood’s demographics.

MEET THE PLAYERS

Knowing the stakeholders in your community and working cooperatively with them leads to better outcomes and a more cohesive community cat management plan.

Most animal care and control agencies are operated by local governments, but some jurisdictions contract with nonprofit organizations to perform these important functions. Regardless, their primary role is to manage public health, safety, and disease concerns as well as complaints from community residents. These agencies are also expected to take care of and redeem lost pets, as well as re-home pets who no longer have homes. For people concerned with the welfare of outdoor cats or those who find them a nuisance, animal care and control agencies are often the first points

of contact. Animal care and control agencies and public health departments need to be prepared to respond effectively to these complaints and proactively address community cat populations when possible.

One of the biggest challenges is maintaining adequate resources (i.e. budget). Few local governments find themselves swimming in the extra money needed to adequately fund a complete animal sheltering operation, including programs addressing community cats. This underscores the importance of volunteers and nonprofit organizations in the community who are willing to devote their resources to helping manage community cats. We strongly encourage municipalities to develop comprehensive



New York City Department
of Health and Mental
Hygiene

[nyc.gov/html/doh/html/
environmental/animals-tnr](http://nyc.gov/html/doh/html/environmental/animals-tnr)

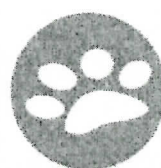
Lists local TNR groups on
its website



New Jersey State
Department of Health
& Senior Services

[state.nj.us/health/
animalwelfare/stray](http://state.nj.us/health/animalwelfare/stray)

Lists TNR as an approach
for managing feral cats



Baltimore City
Health Department

[neighborhoodcats.org/
uploads/File/Resources/
Ordinances/Baltimore_
TNRRegs.pdf](http://neighborhoodcats.org/uploads/File/Resources/Ordinances/Baltimore_TNRRegs.pdf)

Issues regulations for
practicing TNR

volunteer programs and partnerships and agreements with other community organizations. It's also important that agencies evaluate their intake and outcomes regularly to ensure that current resource allocations are appropriate. For example, an agency with high euthanasia rates for cats may want to reconsider its intake policies and reallocate those resources spent housing cats for euthanasia on proactive cat management.

"The Vet PH SPIG encourages communities to discuss trap, neuter, vaccinate and return (TNVR) as a management practice to control community cats, and to adopt this practice where possible."

—American Public Health Association–
Veterinary Public Health Special
Interest Group Policy

Read about municipalities where animal care and control provides services to reduce community cat populations:

Pittsburgh, PA (pittsburghpa.gov/animalcontrol/spay_neuter.htm)

Elk Grove, CA (elkgrovecity.org/animals/feral-cats.asp)

Dallas, TX (dallasanimalservices.org/trap_neuter_return.html)

Sacramento County, CA (animalcare.saccounty.net/spayneuter/pages/feralcatsandkittens.aspx)

San Jose, CA (sanjoseca.gov/index.aspx?nid=2382)

Camden County, NJ (ccasnj.org/spay_neuter_clinic/feral_cats.html)

Private Animal Shelters and Humane Societies

Around three billion public and private dollars are spent each year operating animal shelters across the country (Rowan, 2012). The primary role of most private animal shelters is the housing and adoption of homeless cats and dogs, but shelters are often the receptacle for injured or sick wildlife and cats and dogs who might be considered unadoptable by some. Many community cats fall into this category.

These organizations play an important role in the community, often serving as a point of contact, and are widely recognized by the public for enforcing local and state humane laws and ordinances. They are often involved at a policy level, lobbying for animal protection laws and programs.

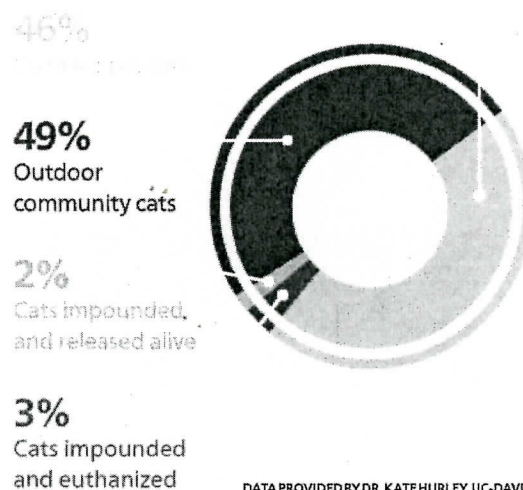
Approximately 6–8 million cats and dogs enter U.S. animal shelters annually, with approximately half being euthanized (HSUS, 2013). That number

"After we implemented a shelter, neuter, return (Return to Field) program in 2010, it changed the way we do business and it has improved our ability to do more to help all animals. It convinced us that more was possible. Last year alone, there were 3,000 fewer cats and kittens in our shelter. As a result, the capacity and savings that we have enjoyed have allowed us to do more to help the cats in our care and it has even benefitted the dogs because those resources don't have to be spent on more cats."

—Jon Cicirelli, Director, Animal Care
and Services, San Jose, CA

includes about 70 percent of cats who enter shelters (ASPCA, 2013). These cat-related intake and euthanasia activities cost more than a billion dollars annually (Rowan, 2012), while affecting only a tiny fraction of the total number of cats in a given community and doing nothing to manage overall cat populations. This haphazard approach has little impact on welfare, environmental, or public health issues. It stresses shelters, overwhelming their resources and far exceeding capacity, and it gives false expectations to citizens coming to these agencies for help resolving problems.

The pie chart from the state of California shows the estimated percentages of outdoor community cats (red) and owned cats (blue) who go outside, compared with the number of cats handled by the California sheltering system who are either euthanized or adopted out (green and purple combined) (CA Dept of Public Health, 2013). Clearly, the tiny sliver of cats handled by the California sheltering system pales in comparison to the total cat population, demonstrating that these hard-working agencies are still making little long-term impact. (Koret, 2013).



Some shelters care for feral colonies on their own property, either by themselves or in collaboration with local TNR groups. Others with high euthanasia rates for cats are embracing "Return to Field" programs as a way to reduce euthanasia while focusing energy and resources on spaying and neutering.

In the Return to Field program, healthy, un-owned cats are sterilized, eartipped, vaccinated, and put back where they were found. The rationale is that if the shelter has no resources, a healthy cat knows how to survive and should not be euthanized to prevent possible future suffering. Using resources for sterilization has a larger impact than focusing resources on intake and euthanasia.



Animal Rescue Groups

These privately run organizations—usually, but not always, with nonprofit tax status—typically do not have a facility and are foster-based. Rescue groups are primarily focused on finding homes for animals in the community. Often, rescue groups and shelters have cooperative relationships in which shelters transfer animals to the care of rescue groups whose foster homes and volunteers help to stretch resources and increase opportunities for homeless animals. There are many rescue groups that specialize in cat rescue, including those that participate in TNR activities.

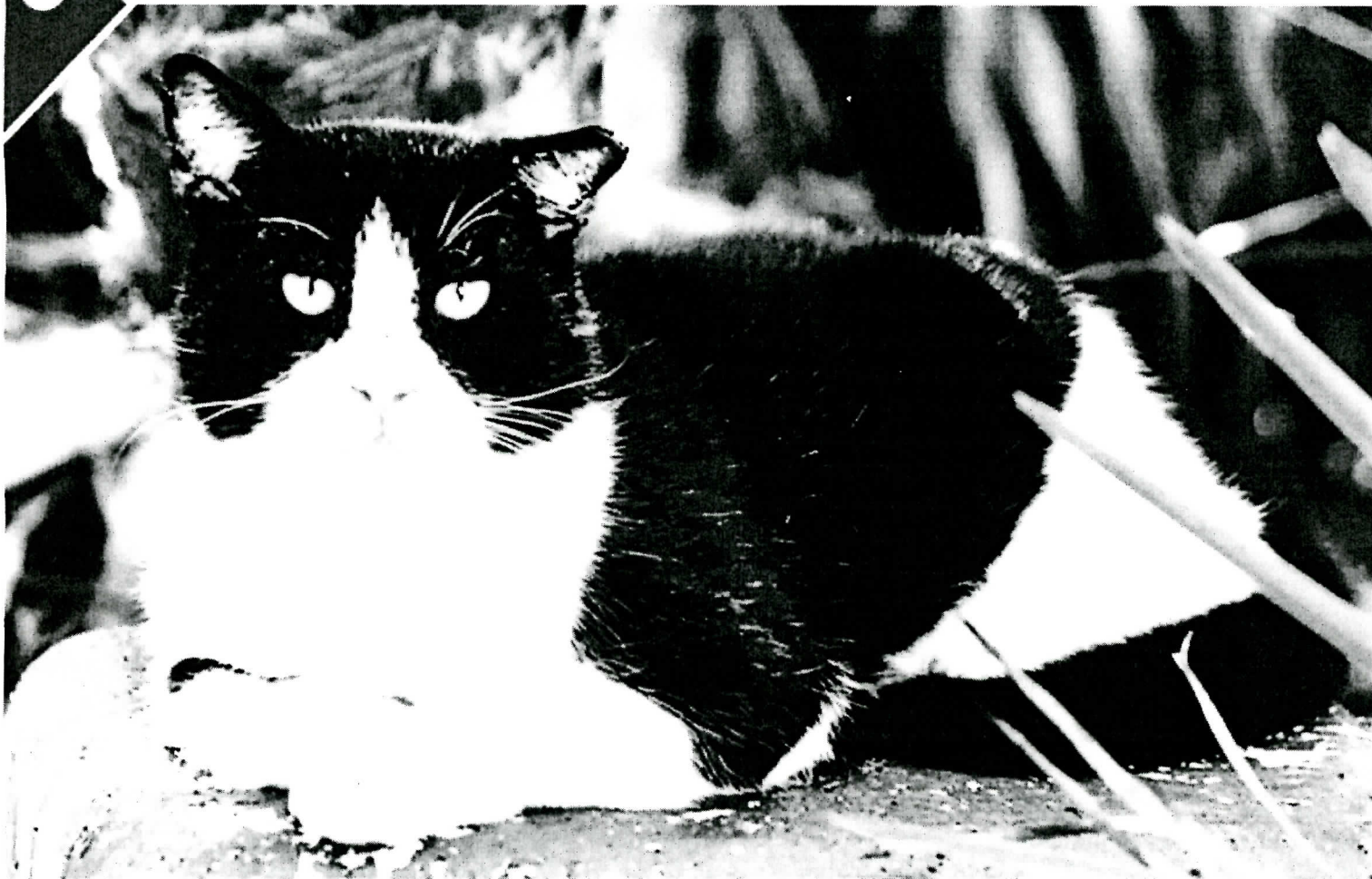
Wildlife Agencies

Thousands of nonprofit organizations exist around the country for the primary purpose of assisting community cats. These organizations are often funded by private donations and

operate on small budgets, but they work hard—often as unpaid volunteers—to trap, neuter, and return cats living outdoors. They may also be involved in local politics, lobbying for improved animal-related ordinances and funding. Some TNR groups also consider themselves rescue groups, and vice versa.

Wildlife Agencies and Conservation Groups—Public and Private

The federal government has not adopted or taken a specific position on TNR. Federal wildlife agencies, such as the U.S. Fish and Wildlife Service, oppose the management of TNR colonies in or near wildlife conservation areas, and individuals in federal agencies have adopted a variety of positions with regard to TNR programs. State wildlife agencies, such as departments of natural resources or fish and wildlife agencies, are



funded through a variety of state and federal sources, such as taxes placed on all firearms and ammunition sold. These state agencies have traditionally focused on the management of game (i.e. hunted) species, but increasingly are becoming involved in broader conservation agendas that include non-game and threatened and endangered species. They typically do not regulate or get involved with TNR programs outside of protected wildlife areas.

Private wildlife groups, such as the National Audubon Society or the World Wildlife Federation, are funded by donations and private grants and operate primarily to protect wildlife from harm and habitat degradation. These groups are often actively involved in lobbying for public policy changes that affect vulnerable wildlife species. Concern regarding outdoor cat predation on wildlife has become a hot topic in the conservation community, but all stakeholders (both cat and wildlife advocates) share the same end goal of reducing outdoor cat populations. See the Concerns about Wildlife section on page 22 for more details.

Veterinarians

Many veterinarians support the concept of TNR and may offer various forms of assistance, but they are also business owners who have a bottom line to meet. While many would like to offer discounted services or to expand their offerings for community cats, they still need to make a living.

The involvement of local veterinarians is a key component of any sterilization program. Communities and organizations need to understand the unique challenges of the veterinary community and to consult local veterinarians when drafting

"I am very proud to be a part of the profession that puts the "N" in TNR. Nationwide, increasing numbers of veterinary professionals are participating in this life-saving strategy. More and more veterinary practices treat free-roaming cats and the number of high-quality, high-volume spay/neuter clinics continues to grow. This is all in recognition of the fact that discontinuing the breeding cycle and then returning the cats to their original environment is the only scientifically proven effective and humane approach to stabilizing, and ultimately decreasing, free-roaming cat populations, as well as protecting potentially affected wildlife. The veterinary profession should be applauded for being such an integral part of the solution to a problem that has plagued our country for decades."

—Susan Krebsbach, DVM, Humane Society
Veterinary Medical Association
Veterinary Advisor, Oregon, WI

program plans. Sterilization capacity will be determined by how many surgeries your local veterinary partners can handle above and beyond their everyday business. Even if your agency hires a staff veterinarian, you should continue to work with other local veterinarians. They can be strong partners for your program, filling in when extra capacity is needed, helping with injured and ill cats, and providing other kinds of medical support.

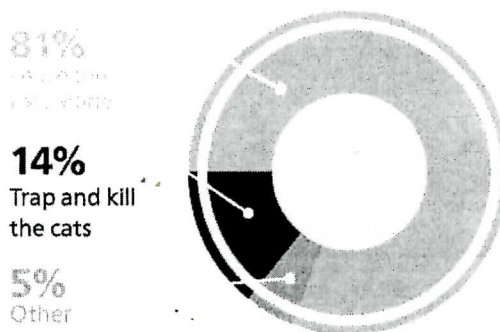


The Work

Most people care about cats and want to see them treated humanely. Communities that embrace effective cat management programs will be rewarded with goodwill from their residents. Many communities are learning about what officials in San Jose, California experienced: that a public who readily understands and supports decisions made in the best interest of the cats turns out to be the best at reducing conflicts between cats and humans and cats and other animals.

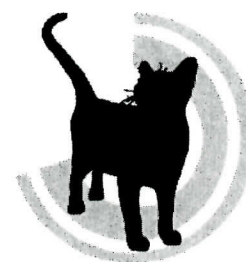
Some residents might complain about cats in their backyard or cats adversely affecting their property. Many of these complaints can be resolved with information about humane deterrents and civil dialogue with neighbors, which agencies can help facilitate. Animal control officers can be an integral part of this approach, or if there are no resources to support this, other successful models include enlisting the aid of a local nonprofit to help mediate cat-related conflicts.

Large-scale sterilization programs depend on volunteer support. A significant portion of the public (approximately 10% to 12%) already feeds community cats (Levy & Crawford, 2004) and might be willing to help, especially when low-cost, high-quality sterilization programs are available. Non-lethal management programs will be readily supported by the majority in your community, while lethal control will not receive the same support and may actively be opposed by concerned residents. Policies designed to support and enable TNR activities are critical; those that place barriers to public engagement in TNR activities or threaten caretakers with penalties for their goodwill and volunteerism need to be amended or removed. Agencies that do not recognize the need to adopt non-lethal solutions often become the focal point of community criticism over high levels of cat euthanasia in the shelter.



An overwhelming majority of Americans believe that leaving a community cat outside to live out his life is more humane than having him caught and euthanized, according to a nationally representative survey conducted for Alley Cat Allies by Harris Interactive in April and May 2007.

U.S. PUBLIC OPINION ON HUMANE TREATMENT OF STRAY CATS
LAW AND POLICY BRIEF, ALLEY CAT ALLIES



say they believe animal shelters should be allowed to euthanize animals only when they are too sick to be treated or too aggressive to be adopted.

Only a quarter of the people who took part in a recent *AP-Petside.com* poll said animal shelters should sometimes be allowed to euthanize animals as a population control measure (ap-gfkpoll.com/featured/ap-petside-com-latest-poll-findings, conducted Oct. 13–17, 2011).

MANAGING COMMUNITY CAT POPULATIONS: WHAT DOESN'T WORK

Many conventional strategies have been used over the years to attempt to manage community cats. You might have tried them or have contemplated trying them, but here is why they don't work.

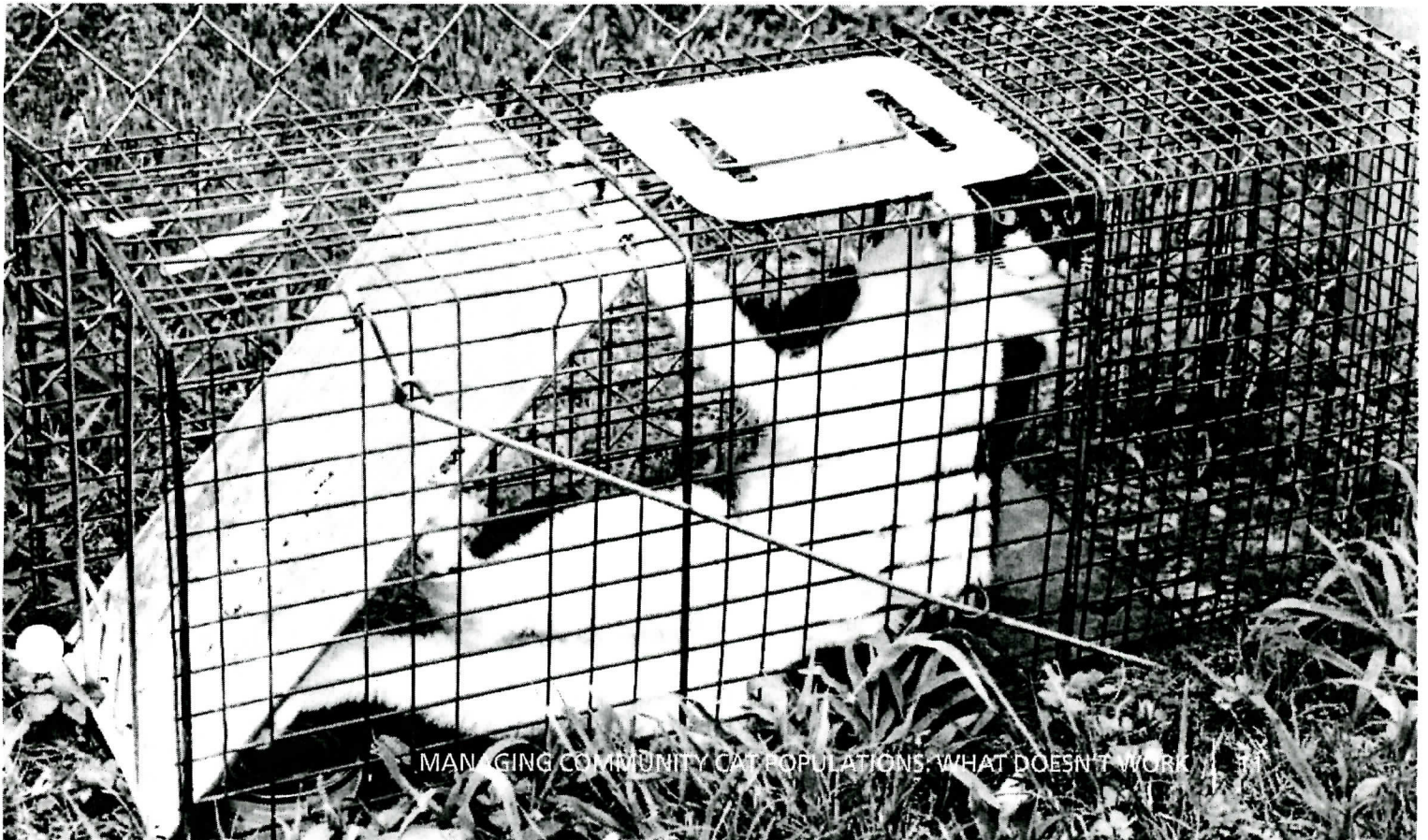
Trap and Remove

Trap and remove may at first glance seem to be the logical approach to solving community cat problems. However, unless it is consistently performed with very high levels of resources and manpower and addresses over 50% of a targeted population, it doesn't offset the root of the problem: ongoing reproduction of un-trapped cats (Andersen and Martin, et al, 2004). The resources (money, manpower, etc.) required to capture this many cats simply do not exist, either in the budgets and capacity of government

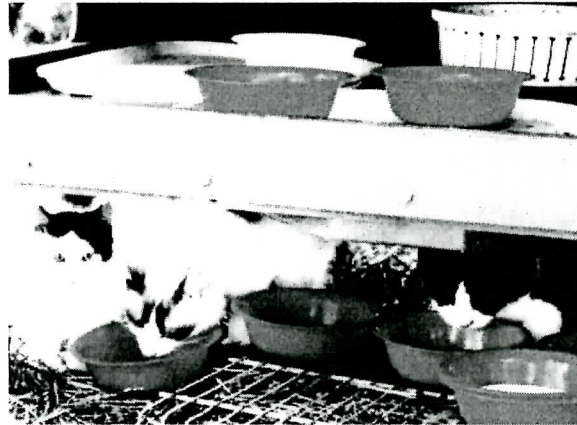
agencies or in terms of public support. Haphazard lethal control efforts only result in a temporary reduction in the cats' numbers, essentially putting a band-aid on the problem and further distance from real solutions.

Moreover, while some advocates of this approach claim that the cats just need to be removed and placed elsewhere, there is no "elsewhere."

Relocating cats is a complex task that is usually unsuccessful and creates more problems than it resolves. The vast majority end up "relocated" to shelters that have no other recourse but to perform euthanasia. Euthanasia in shelters is typically performed to end the lives of ill, dangerous, or suffering animals in a humane manner. When euthanasia is performed on healthy but unsocialized cats, it can be characterized as unnecessary, calling into question whether their deaths are actually humane.



Opposition from many in the community who oppose killing cats and insufficient resources to achieve the level of removal/euthanasia necessary to actually achieve results can often prove to be insurmountable barriers to lethal control programs. Communities that use trap and euthanize strategies typically do not realize reductions in the number of cat complaints, and cat intake at local shelters stays constant or continues to rise. Therefore, the only result of trap and remove/euthanize programs is turnover—new feline faces in the community, but not fewer.



"As a nation, we have over 50 years witnessing the ineffectiveness of trap and kill programs and their inability to reduce community cat numbers. It's time we try the only method documented to work—TNR."

—Miguel Abi-hassan, Executive Director,
Halifax Humane Society,
Daytona Beach, FL

Feeding Cats

The logic behind banning the feeding of outdoor cats is that if no one feeds them, they will go away. However, this doesn't work because cats are strongly bonded to their home territories and will not easily or quickly leave familiar surroundings to search for new food sources. Instead, they tend to move closer to homes and businesses as they grow hungrier, leading to more nuisance complaint calls, greater public concern for the cats' welfare, and underground feeding by residents. People who feed cats will ignore the ban, even at great personal risk, and enforcement is extremely difficult, resource intensive, and unpopular.

"Bans on feeding feral cats do nothing to manage their numbers. Bans force feral cats to forage through trashcans and kill wildlife, such as birds, squirrels, and rabbits. Establishing feeding stations ensures a healthier colony and allows a human being to interact with the colony and provide care for any cat that is under stress or who needs medical attention. Feeding stations also bring feral cats to a central location and help establish a trust, making trapping [for sterilization] an easier task."

—Wayne H. Thomas, Councilman,
Hampstead, MD

Feeding to Control

Laws intended to regulate pet cats and their owners don't work to reduce community cat populations, because community cats do not have "owners" in the traditional sense.

Instead, they're cared for by volunteer resident caretakers who happen upon them. These caretakers should not be penalized for their goodwill; they are essentially supplementing the community's cat management protocols with their time and resources. Rather, laws should be designed to incentivize people in the community to care for these cats and to protect those who do so.

Caretakers don't choose how many cats there are, so pet limits are of little use. Because these cats are not owned, caretakers don't control the cats' movements, so leash laws are equally ineffective. Requiring community cats to be licensed by caretakers is a bad idea from an enforcement and compliance standpoint, and forcing caretakers to register colony locations often causes people concerned for the cats' welfare to go underground and off the municipal radar screen. Additionally, cat-licensing projects rarely pay for themselves and further drain already limited resources. Policies that impose penalties on caretakers are barriers to sound community cat management. However, proactive, non-lethal control programs can enlist the support of caretakers by gaining their trust, and they can in turn provide data on the cats people care for.

"While licensing a cat (like dogs) seems responsible, the unintended consequences of it are damaging. Licensing owned cats does not take care of feral cats that are not owned by anyone."

—Councilman Rod Redcay, VP
Denver Borough Council, PA

Relocation and Sanctuaries

Some individuals or organizations may call for un-owned cats to be relocated or placed in sanctuaries. While this may seem like a humane alternative to lethal control, it is unrealistic due to the sheer numbers of cats in communities. Relocation is time-consuming and usually unsuccessful. Cats are strongly bonded to their home areas and may try to return to their outdoor homes. In addition, if the food and shelter that initially attracted the cats cannot be removed, other unsterilized cats will move in to take advantage of the available resources.

Some shelters and rescues have implemented successful barn cat programs, where unsocialized cats can be relocated to barns and farms to provide rodent control. But these programs require management and are by their nature limited. They can't address the large number of un-owned cats in the community.

Sanctuaries might be available in some areas, but those that provide quality care for animals quickly fill to capacity and are too expensive to maintain for large numbers of un-owned cats. Cat populations vastly out-scale availability at sanctuaries, making them an unrealistic option in most cases. Many unfortunate examples exist of sanctuaries that grew too large and resulted in neglect and cruelty. Moreover, these organizations cause an additional burden on communities, requiring law enforcement intervention and resulting in a large group of cats again needing to be removed and relocated. If you are able to secure a spot in a sanctuary, always visit it in person before sending the cat there, to ensure that all animals receive proper and humane care.



MANAGING COMMUNITY CAT POPULATIONS: WHAT DOES WORK

Properly managed sterilization-vaccination programs do not create cat overpopulation—the cats are already there. The choice is between making progress or continuing to experience an unmanaged problem. Well-designed and implemented community cat programs are in line with public opinion and can mobilize an army of compassionate, dedicated people who care about the cats, wildlife, and their communities. To be most effective, these programs must be adopted by more communities and supported by more animal care and control agencies and municipal officials. The HSUS strongly recommends effective community cat management programs (including TNR and other sterilization programs), legislation that allows for and supports non-lethal population control, and coalition-based approaches that involve community leaders, citizens, and stakeholders.

Solving community cat problems requires many strategies, including:

TNR

Trap-Neuter-Return and its variants are non-lethal strategies intended to reduce the numbers of community cats, improve the health and safety of cats, and reduce impacts on wildlife. At minimum, TNRed community cats are spayed or neutered so they can no longer reproduce, vaccinated against rabies, marked to identify them as sterilized (the universally recognized sign of a sterilized cat is an ear-tip, a surgical removal of the top quarter inch of the of the cat's ear, typically the left), and returned to their home territory.

Community-wide TNR programs are effective because they:

- Vaccinate cats against rabies (and other diseases, depending on available resources), decreasing public health and safety risks
- Create an immediate reduction in population when kittens young enough to be socialized and friendly stray cats are removed
- Lead to long-term management, reduction, and eventual elimination of outdoor cat populations
- Potentially save or better allocate municipal funds associated with trapping, holding, euthanizing, and disposing of community cats because trapping is typically done by volunteers
- Further save funds by reducing the flood of kittens into shelters each spring and fall kitten season
- Decrease nuisance complaints by eliminating or dramatically reducing noise from cat fighting and mating and odor from unneutered male cats spraying urine to mark their territory
- Attract volunteers, gain caretaker cooperation, and create goodwill for shelters and animal control agencies (if the cats were going to be harmed, there would be few volunteers willing to participate)
- Bring in sources of private funding from nonprofits and individuals willing to pay for the cats' spay/neuter surgeries and care
- Allow private nonprofit organizations that help community cats and volunteers to mediate conflicts between the cats and residents of surrounding communities
- Maintain the health of colony cats (cats living together in a given territory) and allow caretakers to trap new cats who join the colony for TNR or adoption

Targeting Efforts

TNR and sterilization efforts are constantly evolving and improving. Through better data collection on cat intake, complaint calls, and euthanasia, and with the advent of GIS software, we are now able to target and focus resources on areas where projects can have the biggest impact. Many projects have had success focusing their funding and efforts within certain zip codes, neighborhoods, or specific locations, such as apartment complexes.

Through an assessment of the data for a given community, geographical "hotspots" become visible. By targeting the appropriate amount of resources—including trappers, surgeries, and marketing—to fully address that target zone, programs can effectively stop the reproduction and get a handle on that population set before moving on to the next target area. This approach has a much faster and more visible impact on cat populations than a scattered, random approach centered on complaint calls across a wide geographical area. Targeted efforts allow you to reach a high

enough rate of sterilization (ideally as close to 100% as possible) to quell population growth. Assessing your community, mapping cat hot spots, and targeting your approach can also help reduce impacts on wildlife by identifying sensitive and vulnerable wildlife areas and focusing efforts in those areas.

"One of the most important recent advances in TNR is the strategy of targeting. By focusing resources like surgeries, outreach, and trappers on areas with high concentrations of free-roaming cats, populations can be reduced faster and more efficiently, resulting in lower intake and euthanasia at shelters as well as fewer complaints."

—Bryan Kortis, Program Manager,
PetSmart Charities,
Phoenix, AZ



Operation Catnip

In their efforts to combat cat overpopulation, the majority of municipal agencies and private organizations are spaying and neutering animals before they are adopted, providing subsidized spay/neuter for pet owners with low incomes, and supporting community cat caretakers with low-cost spay/neuter services, training, equipment and increased legal protections. Programs like these can also attract private funding and grants and engender public goodwill. Most citizens want to do the right thing for their cats, but barriers such as cost or transportation exist in communities across the country. In order to truly address cat overpopulation, these barriers need to be removed for all members of our communities.



"Veterinary students at the University of Florida have been performing TNR in the Gainesville area since 1998. Since Operation Catnip started focusing on litter prevention in community cats, the euthanasia rate for cats at our local shelter has plummeted from more than 4,000 in 1998 to less than 400 in 2012. Residents were wary at first, but 40,000 cats later, it's well-recognized that the program to sterilize, vaccinate, and treat parasites in free-roaming cats has made our community better for people and for cats."

—Julie Levy, DVM, PhD, Diplomate ACVIM, Director, Maddie's® Shelter Medicine Program at the University of Florida Gainesville

Services for Pet Owners

Services for pet owners in the community must be accessible to all residents. They should include preventative and wellness care, such as vaccinations, tips for finding pet-friendly rental housing, and information on keeping pets in their homes by resolving unwanted behaviors and managing allergies. It's important to promote keeping cats indoors and using collars, visible identification, and possibly microchipping for pet cats so that those who do go missing can be reunited with their families. It's also important to let community members know that shelters and rescue groups provide adopters with resources when they face problems with their cats. Shelters and rescues can provide behavior assistance and potentially medical assistance when cats face severe injury or disease.

Each community is different. There is no one-size-fits-all solution for managing community cats. Stakeholders must work together to create programs that address specific needs and maximize their community's available resources. By working together, municipal agencies, shelters, veterinarians, and cat rescue groups can humanely reduce community cat populations while protecting the public, cats, and wildlife. The returns are plentiful: fewer free-roaming cats; lower cat intake and euthanasia; municipal cost savings; greater volunteer participation; more adoptions; better use of limited shelter, animal control, and public health resources; increased goodwill towards shelters; and more lives saved.



"One of the new programs we created was our TNR program, the Apartment Cat Team (ACT). Our data showed us that apartment complexes and mobile home parks were "ground zero" for abandoned cats, feral cats, and litters of unwanted kittens. The ACT program focuses on teaching and empowering apartment residents and managers in the benefits of TNR, spay-neuter, rabies vaccination, and microchips. In addition, we are recruiting kitten foster homes and rescuing kittens out of feral life, socializing them, and adopting them into new homes. The ACT program is a vital program that is contributing to a reduction in euthanasia—along with other innovative programs we have recently put into place to save cats and kittens. The ACT program gives us a chance to try a different approach that is not only more humane, but that also builds rapport between manager and tenant. The result is a public better educated about humane treatment of animals."

—Mike Oswald, Director, Multnomah County Animal Services, Troutdale, OR

ADDRESSING CONCERNS ABOUT COMMUNITY CATS

Concerns

The cost to the municipality

Long-term solutions like TNR may sound expensive, but they usually end up costing less than repeated cycles of trap-house-euthanize. TNR is a long-term investment in a community. The cost of TNR is often covered out-of-pocket by individuals who care about community cats and by nonprofit organizations. But animal care and control agencies and nonprofit organizations with self-funded TNR programs have often found the cost of TNR less expensive than admitting, holding, euthanizing, and disposing of healthy cats. The money saved can be put towards more TNR. There are also many grant opportunities available for targeted TNR programs that can offset budgets and improve efforts.

Concerns

By allowing TNR, the municipality may be liable for any future conflicts with cats

A municipality would be liable for an injury or damage only if it committed an act of negligence. Implementing or permitting a TNR program to reduce the community cat population and resolve nuisance complaints is reasonable government behavior, not negligent conduct. In addition, liability for harm caused by animals typically stems from ownership—but no one “owns” a community cat just as no one “owns” a squirrel who might cause damage.

Even if a person is bitten or scratched, a TNR cat likely would have been vaccinated against rabies. Rabies prophylaxis treatment will likely still be advisable, but the real risk of rabies is reduced. Consider an alternate situation, where a person is bitten and sues the municipality because officials turned down a TNR program that would have dealt with an overpopulation issue and vaccinated cats against the disease. At least 34 states require rabies vaccination for cats, and efforts should be made to revaccinate cats when possible (AVMA, 2013).

Concern

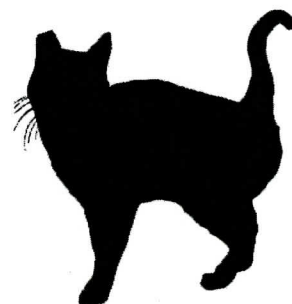
Community cats transmit diseases

Many animals, both wild and domestic, can pass diseases to people. Rabies is a disease of significant concern, and focusing on prevention is the best medicine. Vaccination against rabies should be a standard protocol for TNR practitioners.

According to the Centers for Disease Control and Prevention (CDC, 2013), over the last 100 years, rabies in the United States has changed dramatically. The number of rabies-related human deaths in the United States has declined from more than 100 annually at the turn of the century to one or two per year in the 1990s (CDC, 2013). In the United States, human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they were unaware of their exposure. Modern day prophylaxis has proven nearly 100% successful (CDC, 2013). The CDC also reports that the number of reported cases of rabies is decreasing in both wild and domestic animals. In 2010, wild animals accounted for 92% of reported cases of rabies (CDC, 2013). The World Health Organization hasn't recommended removing dogs to control rabies since 1983 because vaccine programs have been more successful (WHO, 1984).

Although the majority of rabies cases occur in wildlife, domestic animals are the source of the majority of human cases that require post-exposure treatment because people are more likely to handle unknown dogs and cats than wildlife. Most rabies cases in cats occur in areas with large raccoon populations, like the Northeast.

Vaccinating community cats against rabies as part of a TNR program should be supported as a preventative measure against the potential spread of the disease. Some public health officials have concerns about revaccinating community cats when vaccines expire. Because the lifespan of



community cats is typically much shorter than that of pet cats, a vaccine with three-year immunity may provide protection for the life of many community cats. It's clearly better than no vaccine at all. Well-managed programs should attempt to re-trap cats for further vaccinations. These programs also have the benefit of potentially reducing cat roaming. They can manage feeding so that fewer people come into contact with the cats. In this way, while the risk of rabies transmission from cats may not be entirely eliminated, it can be significantly reduced.

Sterilized cats are typically healthier overall (Scott et al., 2002) and have greater immunity against a host of other diseases and parasites (Fischer, et al., 2007). Sterilized cats are also less likely to transmit feline diseases that are largely spread through mating behavior and mating-related fighting (Finkler, et al., 2011). People who feed community cats should use feeding strategies that do not attract wildlife (e.g. not leaving food out overnight), as should people who feed their pet cats outdoors. Not all states have mandatory rabies vaccination laws for cats, so it is important to determine whether your state does (or should). You should offer low-cost vaccination options for low-income cat owners. Refer to the appendix for additional public health information and documents about rabies and other diseases.

Cats will continue to be a nuisance to residents

With TNR, nuisance behaviors can be drastically reduced or eliminated. Neutered cats typically don't yowl late at night or fight over mates (Finkler et al., 2011), so noise is greatly reduced. The odor from male urine spray is mostly eliminated because testosterone is no longer present, and spraying to mark territory may stop entirely. Altered cats, no longer in search of mates, may roam much less frequently (Scott et al., 2002) and become less visible. Because they can no longer reproduce, over time there will be fewer cats, which in itself will result in fewer nuisance behaviors, complaint calls, and a reduced impact on wildlife.

To prevent community cats from entering areas where they're unwanted, such as yards or gardens, residents can try blocking access to shelter areas and securing garbage containers. If these solutions don't work, many humane cat-deterrent products are available in stores and online. Check the appendix for a list of simple solutions to common complaints.

Remember that many cat nuisance cases are the result of neighbor disputes. Facilitating dialogue and mutually agreed-upon resolutions in those cases is often a much more effective outcome than removing the cat(s) in question.





TNR is illegal in our community

Some existing ordinances may have components that pose barriers to practicing TNR. Ordinances are typically written for pet cats, so it's important to review local and state laws to know where amendments are needed to allow your community to implement TNR. For example, laws might ban feeding animals outdoors, limit the number of cats that can be owned (with "owners" defined in a way that includes colony caretakers), prohibit returning cats to the community under abandonment language, prohibit cats from roaming freely, or require that all cats be licensed. In order for an effective TNR program to thrive, your community should amend these provisions to exempt managed community cats and their caretakers or enact an ordinance that explicitly legalizes TNR. Our website and the appendix include examples.

Even when conflicting regulations don't exist, some municipalities may still choose to enact an ordinance authorizing TNR and defining the roles and duties of all parties. Or a community might prefer, as a matter of local culture, to allow TNR informally. In such cases, a TNR ordinance might be unnecessary and actually hinder the functioning and growth of an already successful program.

The goal of a TNR ordinance is a successful sterilization program. Your program will succeed only if your community encourages participation and full engagement by caretakers and removes overly burdensome requirements and restrictions that discourage their involvement.

"Carroll County has a law that is in effect in Hampstead, which states that if you care for an animal for more than three days, the animal is considered yours. Therefore, anyone caring for feral cats for more than three days would be considered their owner and if it were more than three cats, that person would be in violation of the Hampstead limit of three cats.

The code change I proposed and got passed exempted persons participating in a TNR program with continued care of feral cats from the limit of three cats. This allowed citizens to participate in the TNR programs and management of feral cat populations."

*—Wayne H. Thomas, Councilman,
Hampstead, MD*



Concern

Welfare of cats

The idea that community cats are at great risk for suffering and untimely death if not admitted to a shelter is a long-standing one. However, a growing body of evidence suggests that this is not the case. Data from clinics that sterilized more than 100,000 cats nationwide revealed that they are generally fit and healthy, with less than one percent requiring euthanasia to end

suffering (Wallace & Levy, 2006). Common feline diseases, such as feline immunodeficiency virus (FIV) or feline leukemia virus (FeLV), occur at the same rate as in the pet cat population (Lee et al., 2002). Our article "*Keeping Feral Cats Healthy*" (animalsheltering.org/resources/magazine/sep_oct_2008/keeping_feral_cats_healthy.html) offers more details.



Concern

Welfare of wildlife

There are no easy answers to the issue of cat predation on wildlife. What to do about it has been a concern for more than 100 years. However, neither cats nor wild animals are well served by a polarized, divisive, and expensive "cats vs. wildlife" controversy. Practical solutions include humanely reducing cat populations using TNR and managing cats (individuals and colonies) so they do not impinge on designated wildlife areas and at-risk wildlife populations. Not all cat colony situations are the same. For example, cats may need to be removed when they congregate in or near a sensitive wildlife habitat, whereas they could be effectively managed behind a shopping center in a suburban town.

When predation by community cats is an issue, respectful dialogue and productive collaboration between cat and wildlife advocates is essential. There are several examples of such dialogue

(e.g. in Portland, Oregon, and New Jersey) that communities might seek to follow. It is not always easy to arrive at a solution that protects all interests to the greatest extent. Effective TNR programs seek to reduce the population of community cats, eventually bringing it to zero. Although TNR might not work as quickly as some would like, there are numerous successful examples of population reduction.

Wildlife and cat advocates can also help protect wildlife by joining forces in non-controversial collaborative projects such as informing cat owners about keeping owned cats indoors, seeking support and funds for installing cat-proof fences around sensitive natural areas, humanely relocating cat colonies that pose unacceptable risks to wildlife, and, of course, continuing community cooperation to improve the efficiency and economy of TNR programs.

FINDING FUNDING

Adequate funding is critical to a successful TNR program. When all stakeholders are engaged in targeted efforts to reduce cat populations they'll likely offer resources to help the program succeed. Municipalities that operate TNR programs through their agency or a contracting agency should include funding for these activities in the budget, but financial assistance and grant opportunities can offset budgets and help stretch dollars. A successful community TNR program can also generate savings through lower intake and euthanasia—funds that can help the program continue running.

If an incorporated nonprofit animal welfare organization runs the TNR program, it can raise funds through direct mail, grants, and special events. Many grant-making organizations

exist; some provide grants to government agencies, whereas others focus their efforts on nonprofit organizations. Many states have local or statewide community foundations that may support a program that encompasses law enforcement, public health, animal welfare, and wildlife conservation. Grant-makers are very interested in collaborations between private organizations and municipal agencies—an additional incentive to partnerships between those stakeholders.

For a list of grant-making agencies to get you started, please check out our list in the appendix. You can find information on necessary supplies, vaccines, etc. that require funding in the *Neighborhood Cats Handbook* (neighborhoodcats.org/uploads/File/Resources/NC_TNR_Handbook_WEB_v5-4.pdf).



FINAL THOUGHTS

Properly managed TNR programs do not create cat overpopulation—the cats are already there. Your community must choose between progress or an unmanaged, ever-growing problem. Well-designed and well-implemented programs that focus on non-lethal control and involve all community stakeholders are in line with public opinion. They can mobilize an army of compassionate, dedicated people who care about the cats, wildlife, and their communities.

By working together, municipal agencies, shelters, veterinarians, and cat rescue groups can humanely reduce community cat populations while protecting the public, cats, and wildlife. The returns are plentiful: fewer community cats; lower cat intake and euthanasia in shelters; municipal cost savings; greater volunteer participation; more adoptions; better use of limited shelter, animal control, and public health resources; increased goodwill towards shelters; and more lives saved.

Doing nothing or repeating failed approaches is no longer an option. Proactive, effective approaches exist and need to be fully embraced and implemented in a majority of our communities if we're going to have a lasting impact. Please join us in making our communities safer for all.

“Trap, neuter and return works. It is a humane solution and we are thrilled that in such a short time the TNR program is showing significant results in Fairfax County. With the help of citizen trappers, we are able to spay or neuter these cats before they contribute to our community's homeless cat population. TNR is saving lives in Fairfax County.”

—Dr. Karen Diviney, Former Director,
Fairfax County Animal Shelter,
Fairfax, VA

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Appendix

TNR is supported by The Humane Society of the United States and many other national groups, including:

Alley Cat Allies
American Animal Hospital Association
American Association of Feline Practitioners
American Humane Association
American Society for the Prevention of Cruelty to Animals (ASPCA)
Association of Shelter Veterinarians
Best Friends Animal Society
Cat Fanciers' Association
Humane Society Veterinary Medical Association
National Animal Control Association
Petco Foundation
Petfinder
PetSmart Charities

Find Local Organizations and Agencies in the United States and Canada Supporting TNR
humanesociety.org/assets/maps/feral-cats.html

Link/Found Throughout the Document

Municipal Programs

Pittsburgh, PA: pittsburghpa.gov/animalcontrol/spay_neuter.htm

Elk Grove, CA: elkgrovecity.org/animals/feral-cats.asp

Dallas, TX: dallasanimalservices.org/trap_neuter_return.html

Sacramento County, CA: animalcare.saccounty.net/SpayNeuter/Pages/FeralCatsandKittens.aspx

San Jose, CA: sanjoseca.gov/index.aspx?nid=2382

Camden County, NJ: ccasnj.org/spay_neuter_clinic/feral_cats.html

Departments of Health

New York City, NY: nyc.gov/html/doh/html/environmental/animals-tnr.shtml

State of New Jersey: state.nj.us/health/animalwelfare/stray.shtml

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- Peterson, N. *Talking TNR*. *Animal Sheltering* July/August 2012; 41–46.
animalsheltering.org/resources/magazine/jul_aug_2012/101-dept-talking-tnr.html
- "Cats and Wildlife: An HSUS Perspective"
hsus.typepad.com/wayne/2013/01/cats-wildlife-hsus-perspective.html
- "Finding Common Ground: Outdoor Cats and Wildlife"
humanesociety.org/news/news/2011/11/ferals_wildlife.html
- "Prowling the Divide"
animalsheltering.org/resources/magazine/jul_aug_2009/creature_feature_prowling_the_divide.html
- "Keeping Feral Cats Healthy" *Animal Sheltering* September/October 2008; 51–53
animalsheltering.org/resources/magazine/sep_oct_2008/keeping_feral_cats_healthy.html

Video

"Fixing Cat Overpopulation"
youtube.com/watch?v=fTCTuJRkvng

"How to Perform a Mass Trapping"
neighborhoodcats.org

Other Online Resources

The HSUS's Position Statement on Cats

humanesociety.org/animals/cats/facts/cat_statement.html

FAQs

humanesociety.org/issues/feral_cats/qa/feral_cat_FAQs.html

Handouts

"Can You Help This Cat?"

marketplace.animalsheltering.org/product/can_you_help_this_cat

"Helping Homeless Cats" handout in English and Spanish (can be printed on both sides of paper)

humanesociety.org/assets/pdfs/pets/helping-homeless-cats_english.pdf

humanesociety.org/assets/pdfs/pets/helping-homeless-cats-spanish.pdf

Self-Paced Online TNR Course for Caretakers and Webinar Series

humanesociety.org/outdoorcats

Community Assessment Toolkit: HSUS Pets for Life program

animalsheltering.org/how-we-help/work-for-change/pets-for-life/pets-for-life-toolkit.html

Community cat information sheets on cat ordinances, protecting public health, rabies concerns, humane deterrents, and more can be found on our website: humanesociety.org/outdoorcats

Books (Available at marketplace.animalsheltering.org)

Publicity to the Rescue shows how you can use the power of publicity to raise more money, recruit volunteers, and boost adoptions.

Coalition Building for Animal Care Organizations describes how coalition building can maximize the positive impact of animal-related organizations on their communities. The book demonstrates that, by finding common ground and putting aside their differences, groups can tackle difficult problems that can't be solved by any one agency.

Fund-Raising for Animal Care Organizations demystifies the fund-raising process and breaks down this daunting task into practical, manageable steps.

Funds to the Rescue will save you from wasting time as you search for new revenue streams to support your humane organization. The book begins with "The Hows and Whys of Fundraising" and follows with 101 entertaining and creative ideas.

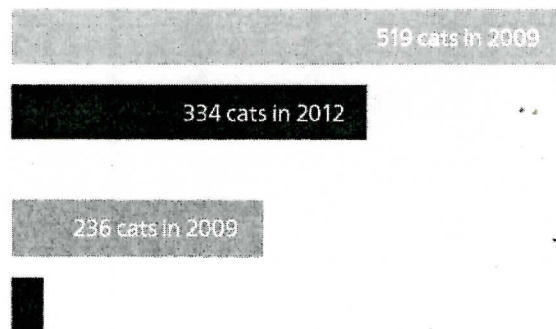
Neighborhood Cats Handbook, 2nd Edition:

neighborhoodcats.org/RESOURCES_BOOKS_AND_VIDEOS



Data from Successful Targeted TNR Programs

Provided by BBS/WH/CSO - 4/11



Group: Fox Hollow Animal Project

Target area: Ravalli County, MT (pop. 40,000; 2400 sq. miles)

Project: 1,329 spays/neuters of community cats from July 1, 2010 through 2012

Results: Cat intake from Ravalli County to the Bitter Root Humane Association (open admission) went from 519 in 2009 to 334 in 2012 (36% decline) and cat euthanasia went from 236 in 2009 to 30 in 2012 (87% decline).

1,032 calls in 2009



Group: Thompson River Animal Care Shelter (TRACS)

Target area: The five towns located in Sanders County, MT (pop. 11,000; 2700 sq. miles)

Project: 755 spays/neuters of community cats from July 1, 2010 through July 1, 2012

Results: Cat-related calls to TRACS, the only animal shelter in the county, went from 1,032 in 2009 to 166 in 2011 (84% decline).

1,958 calls in 2010



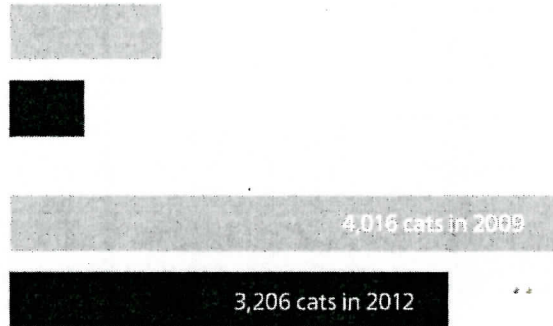
Group: PETS Low Cost Spay and Neuter Clinic

Target area: Wichita Falls, TX (pop. 104,000)

Project: 1,188 spays/neuters of community cats from 2011 through 2012

Results: Community cat related complaint calls to Wichita Falls Animal Control went from 1,958 in 2010 to less than 200 in 2012 (at least 90% decline).





Group: Alley Cat Advocates

Target area: Began as one zip code in Louisville, KY (later expanded to total of five zip codes)

Project: 2,000 spays/neuters of community cats in the five zip codes

Results: Cat intake excluding owner surrenders from the original zip code to Metro Animal Services went from 1,119 in 2009 to 550 in 2011 (51% decline). Cat intake excluding owner surrenders in the rest of the shelter's service area went from 4,016 to 3,206 (20% decline). As a result of the project, the Councilwoman for the original target zip code sponsored TNR-enabling ordinance that passed the City Council.

Other Organizations' Policies

American Animal Hospital Association, aahanet.org/Library/AAFPPosition.aspx

American Association of Feline Practitioners,
catvets.com/guidelines/position-statements/free-roaming-abandoned-and-feral-cats

American Humane Association,
americanhumane.org/assets/pdfs/about/position-statements/animal-position.pdf

American Society for the Prevention of Cruelty to Animals (ASPCA), aspca.org/about-us/aspca-policy-and-position-statements/position-statement-on-feral-cat-management

Association of Shelter Veterinarians,
sheltervet.org/wp-content/uploads/2012/11/FeralCommunityCatMgmt.pdf

Best Friends Animal Society, bestfriends.org/What-We-Do/Our-Work/Initiatives/Cat-Initiatives/

Cat Fanciers' Association, cfainc.org/CatCare/OverpopulationLegislativeIssues/FeralCats.aspx

Humane Society Veterinary Medical Association, hsvma.org/legislation#feralcats

National Animal Control Association, nacanet.org/guidelines.html#community

Petfinder, petfinder.com/helping-pets/feral-cats/what-is-a-feral-cat/

PetSmart Charities, petsmartcharities.org/pro/grants/spayneuter-grants/free-roaming-cat-spayneuter-grants

This publication (*Managing Community Cats*) is intended to provide general information about community cats. The information contained in this publication is not legal advice and cannot replace the advice of qualified legal counsel licensed in your state. The Humane Society of the United States does not warrant that the information contained in the *Managing Community Cats* publication is complete, accurate, or up-to-date and does not assume and hereby disclaims any liability to any person for any loss or damage caused by errors, inaccuracies, or omissions.

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Exhibit C



Internet Center for Wildlife Damage Management

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Canada Geese Damage Management Areas

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Human Safety

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CANADA GEESE DAMAGE MANAGEMENT

CONTROL TECHNIQUES HOME PAGE

Below is a review of all the various techniques used to manage the damage by Canada geese.

We encourage an integrated approach that considers the suitability of all the available tools. We caution readers that successful management of Canada geese will utilize a wide variety of techniques.

For specific suggestions on techniques most suitable for different situations, please visit the links in the column on the left.

Fig. 1. Canada goose (*Branta canadensis*) Photo by Stephen M. Vantassel



Canada geese round up. Photo: Rick Benson/UNL

CAUTION: To avoid violating laws, regulations, or ordinances, readers are encouraged to consult state and local officials before initiating control techniques.

Control Techniques For Canada Geese

Habitat Modification Tactics

Ban Feeding. Geese tend to stay where there is food present and where there is a source

of open water. Some people like to provide resident geese food throughout the seasons, which can cause problems because the geese will associate the site with readily available food. It becomes difficult to remove the geese from such sites. Education and regulations can help decrease food handouts. Educational signs explaining why it is important not to feed the geese and fencing around their routes to prevent feeding can help decrease public feeding.



Grass Cultivars. Less nutritious grass can be obtained by mowing and fertilizing as little as possible, planting a less-palatable grass

species (geese have a high feeding preference for Kentucky bluegrass, they dislike tall fescue, especially varieties that contain endophytic fungus), replacing lawns with unpalatable ground cover such as: common periwinkle, Japanese pachysandra, and English Ivy.

Feeding Geese makes it more difficult to eliminate geese from problem areas. Photo: Stephen M. Vantassel



Signs like this one can help reduce feeding. Photo: Stephen M. Vantassel

Disrupt Travel and Sight Lines.

- Install shoreline walls and Riprap (residential shoreline with walls or rip-rap).

Home Page

Biology

Damage ID

Damage Prevention and Control Methods

Agencies

Credits

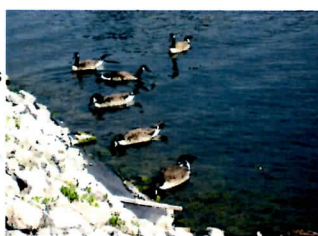
Spotlighted Publication

Managing Canada Geese in Urban Environments

Managing White Ibis at the University of Illinois
A. S. S. S. S. S.



- Plant bushes, hedges, or shrubs to make the area appear unsafe to the geese. Canada geese tend to avoid areas where



Vegetation to grow along the banks is a natural way to discourage geese from loafing on nearby grass. Photo: Rick Cordeiro.



Large stones along the bank will make the lake less attractive to geese. Photo: Stephen M. Vantassel

predators are able to hide.

Increase Bank Slope

Increase the slope of banks to 64 degrees or steeper for a length of at least 2 meters. Radtke and Dieter found that geese would not use a pathway with a slope of 64 degrees for more than 2 meters. Geese did, however, use a pathway with a 54 degree slope for 1.5 meters.

Increase Distance to Food Sources

Radtke and Dieter also found that geese were less likely to walk to food that was placed beyond 39 yards from the water line.

Exclusion

Pros. Exclusion method is one of the most effective non-lethal techniques when used properly.

Cons. Fencing and overhead wires can restrict access to people as well as geese and these techniques also might not be visually pleasing. Ultimately those who desire to manage Canada geese have to decide whether the benefits outweigh the negatives.

Fencing. Fencing is one of the most effective non-lethal techniques when used properly. Canada geese prefer to feed, roost, and loaf near water where they can escape if threatened (Gosser et al. 1997). Restricting access to water from land will help deter geese away from that area, and fencing completely around a pond can be very effective, especially if the geese are molting. Short fences, vertical banks, or hedges at least one foot high around ponds can be adequate especially if the geese have goslings. Even if the geese are able to fly the barrier between the pond and lawn, the hassle of continuously flying over the fence will eventually drive the geese away. On smaller ponds you can strand high tensile wire or UV-resistant polypropylene line across the pond. The lines should be no more than five feet apart and at least 3-4 inches above water level. Strands should be held in tightly to prevent sagging and should be tied around individual stakes to make repairs easy.

Electric fences have sometimes been used on private land. The energizer delivers an uncomfortable shock that geese will quickly avoid (Gosser et al. 1997). Check with local authorities before using this technique.

Lines (lines over ponds to exclude geese)

Frightening Devices/Methods

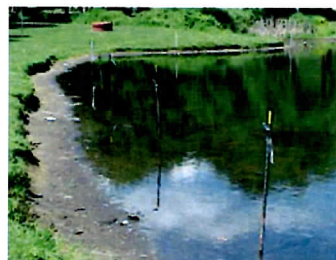
Pros. Frightening techniques are most effective when the geese first arrive at a site or at night when they are roosting. Some common devices include pyrotechnics, flagging, balloons, scarecrows, and recorded distress calls (Gosser et al. 1997).

Use of more than one technique to improve efficacy.

Cons. These techniques tend to only work in the short term and/or must be used repeatedly.

Flagging.

Strips (2 to 3 feet) of 1-inch wide Mylar® tape are attached to poles so that they can swing and flutter in the wind. Tethered scare-eye balloons or similar products may also be used.



Flagging, as a frightening method of keeping geese away. Photo: Stephen M. Vantassel.

Pyrotechnics.

Think of pyrotechnics as specialized fireworks that are fired from a special starter-pistol or single-fire shot gun. Pyrotechnics are highly effective at moving geese. However, pyrotechnics present several safety concerns. Users must wear eye and ear protection and only discharge pyrotechnics in areas where neighbors will not be disturbed and local ordinances allow. Pyrotechnics also pose potential fire risks. Permits may be required to purchase some versions of pyrotechnics.

Always consider where the frightened geese will go as their flight may pose hazards to vehicles and aircraft.

Pyrotechnics should not be used during the molt.



Pyrotechnics are effective in scaring geese for short periods of time. Galen Truan of Wildlife Services pictured. Photo: Stephen M. Vantassel

Effigies.

Silhouettes of coyotes (made of plywood or poster board) or actual stuffed coyotes



have been effective in scaring geese away from locations. Moving the effigies regularly or purchasing those that can move or spin increases their frightening ability.

A floating alligator head is also available.

Do not begin the use of effigies during the molt.

Lasers. Green and red lasers have been found to be effective in frightening geese. Best used in low-light conditions or at night. To prevent risk of injury, keep the beam horizontal to the ground. Consider the back ground before shining. Never shine in human eyes and NEVER shine in the sky.

Always consider where the frightened geese will go as their flight may pose hazards to vehicles and aircraft.

Do not use during the molt.

Mechanical hazing (boats, planes, helicopters) . Like other hazing techniques, mechanical hazing is time intensive. Boats are the easiest to use but must be used on ponds and lakes small enough to allow the boat to remain in range of the controller. Ponds with lots of subsurface and surface obstacles make boat use difficult. Capsizing of boats is common.

Always consider where the frightened geese will go as their flight may pose hazards to vehicles and aircraft.

Mechanical hazing devices should not be used during the molt.

Biological**Frightening Methods**

Dogs. Dog such as Border collies may be used to frighten geese. They require training and can be quite expensive to own as the dog must be maintained throughout the year even when geese are not being hazed.

Always consider where the frightened geese will go as their flight may pose hazards to vehicles and aircraft.

Dogs should not be used during the molt.



Border collie used to haze geese. Photo: Gretty MacIntyre.

Swans. They have not been shown to be effective in keeping Canada geese away. They are also more aggressive than Canada geese increasing the potential for human injury.

Swans also change the habitat of the pond. Their longer necks allow them to pull vegetation that is deeper in the water thereby modifying the underwater plant mix.

Swans are not recommended.

The photo at the right provides visual proof that swans don't always work.

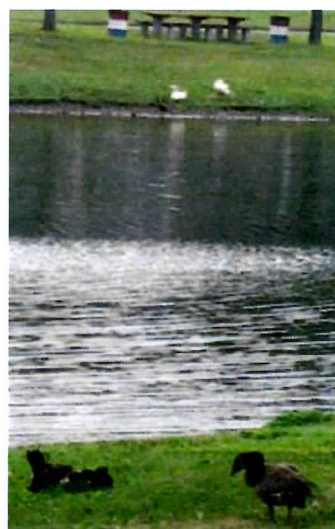
Repellents & Chemical Safety

Methyl Anthranilate. (Pesticide permit required)

Methyl-anthranilate is an extract from grapes (which is used to flavor grape drinks for human consumption) causes a pain sensation to the geese when they inhale it. Spraying the desired area or using a fogger is an easy way to apply this repellent.

Anthraquinone. (Pesticide permit required)

Anthraquinone, when ingested by geese, causes stomach upset, which deters geese from eating the grass through a behavioral mechanism known as "conditioned aversion." This repellent is sprayed on the grass. Anthraquinone also has a sparkle effect (visible to geese but not to humans), which allows the geese to identify treated areas and avoid foraging there.



Note the white swans on the opposite side of the lake away from the Canada geese. Photo by Stephen M. Vantassel.

Capture

Netting. Geese are pre-baited to habituate them to feed in the capture zone.

Net is fired remotely. Geese must be gathered up quickly to prevent injury.



WCS NetBlaster™ being setup. Photo by Stephen M. Vantassel



WCS NetBlaster™ can be used to capture geese. Photo: Stephen M. Vantassel

&

Round Ups. (Permits required). During June and July, geese are flightless due to molting. Geese can be herded into funnel traps and then translocated or euthanized depending on the permits. Translocation is most effective with goslings as they have not become attached to the location. Translocation is also costly in terms of labor and travel. If euthanasia is chosen, use cervical dislocation or asphyxiation with carbon dioxide. Both methods are humane and relatively cost-effective.

Alpha-chlorolose. (Available to USDA-Wildlife Services Only). This chemical is used as a stupefying agent to allow the capture of geese.

Translocation. (Permits required). You must separate goslings from adult birds. Only translocate the goslings as adults will return to the initial capture location (Holevinski et al. 2006, Groepper et al. 2008). Hatch-year birds are likely to stay at the release site if after-hatch year birds are not present (Gosser et al. 1997).

Euthanasia methods include carbon-dioxide and neck wringing.

Carcass Disposal. Consult your local landfill or health department on proper disposal of geese carcasses.

Food Use. Consult your state wildlife agency on proper methods to prepare geese for human consumption.

Shooting

Legal Hunting. Hunting is an effective method for reducing populations and deterring geese from an area. Most states with populations of nuisance Canada geese offer special hunting seasons that target local geese during the fall but before or after the migratory goose populations move through (Gosser et al. 1997). Seasons have bag limits and possession limits, that vary from state to state.

Shooting of problem geese can be controversial and may be met with opposition that must be addressed in a considerate manner. Public education, including evening meetings with printed material may be needed when implementing this management strategy. An educational process should be built into the timetable for the goose management plan.

Urban flocks of Canada geese can be difficult to hunt because of the obvious hazards to people and property. This fact in concert with the regulatory guidelines designed to protect migratory waterfowl have limited the application of typical waterfowl seasons. However, harvesting enhances other management options.

Shooting increases noise disturbance, reduces protected areas available to the birds for feeding or nesting, enhances the effectiveness of habitat modifications, and reduces the number of adults. Harvesting of adults can be augmented with egg removal or puncturing (see below). Hunting is the most cost-effective method for managing populations of suburban Canada geese. Managed hunts are often the best way to reduce goose numbers in urbanized areas. /p>

Many states have opened early seasons, commencing September 1, to remove more resident geese. A more effective, site-specific hunting approach has been achieved via the issuance of special purpose kill permits. These permits allow trained individuals to hunt at a specified, restricted location, such as an airport or community wetland. Cooperation with local law enforcement is necessary. These permits have also been issued for some golf courses and parks. To ensure public safety, these areas are closed for several hours on a set schedule for several weeks. Shotguns are typically used for hunting.

Shotguns propel a small mass of pellets over short distances, impacting the target area at ranges up to 60 yards. Shotguns have a maximum potential to hit the target with the minimum potential of impacting a non-target animal or human.

Several states use harvested geese in community food banks, homeless shelters, and soup kitchens. Geese used for this purpose may be either netted or hunted. This is a very positive approach that should be investigated when a local harvesting/relocation measure is being considered. As of 1999, USDA approval has been required for the donation of goose meat to food banks, so it is necessary to use USDA-inspected processing plants. Goose meat should be inspected for steel shot. Recipients may need assurances that the geese have not ingested pesticides or other contaminants. Although contamination is not likely in urban areas, some instances of goose poisoning have occurred, relative to agricultural chemicals in farm locales (http://www.state.nj.us/dep/watershedmgt/DOCS/BMP_DOCS/Goosedraft.pdf).

Sharp Shooting. (Permits needed). Useful for removing isolated individuals.

Other Methods/h2>

Egg Addling (Destruction). (Permits required). Addling is best done by completely coating the egg with corn oil, which limits the oxygen to the developing egg causing it to stop growing. While other oils can work, federal law only permits the use of corn oil. Alternative methods such as shaking or puncturing are either difficult to do or result in speeding the rotting process which increases the likelihood of nest abandonment and the attraction of predators.



Eggs can be addled or oiled.
Photo: Matt Reinbold

OvoControl-G®. Pesticide license required)
This product contains the active

ingredient nicarbizan which prevents eggs from becoming fertilized and hatching. Geese that are fed this product during the egg-laying season will produce sterile eggs.



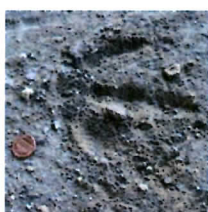
Bibliography

Gosser, A.L., M. R. Conover, and T. A. Messmer. 1997. Managing problems caused by urban Canada geese. Berryman Institute Publication 13, UT State U., Logan, UT.

OvoControl-G® prevents geese eggs from fertilizing as long as female geese continue to eat it. Photo: Stephen M. Vantassel.

Groepper, S. R., P. J. Gabig, M. P. Vritiska, J. M. Gilsdorf, S.E. Hygnstrom, and L. A. Powell. 2008. Population and spatial dynamics of resident Canada geese in southeastern Nebraska. Human-Wildlife Conflicts 2:271-278.

Holevinksi, R. A., R. A. Malecki, and P.D. Curtis. 2006. Can hunting translocated nuisance Canada geese reduce local conflicts? Wildlife Society Bulletin 34:845-849.



Recommended Citation

Canada Goose Management Website. University of Nebraska-Lincoln, NRES 348 Wildlife Damage Management Semester, 2010. Scott Hygnstrom, Instructor; Stephen M. Vantassel, Webmaster.

<http://icwdm.org/handbook/Birds/Canada>

Exhibit D

Park Update

In Fiscal Year14/15 the Board of Supervisors allocated funds to replace some of the worn-out picnic tables and grills in the park system. The following replacements were installed:

District 1:

Cutler Park: 1 large grill, 2 small grills, and 2 picnic benches.

District 2:

Alpaugh Park: 1 small grill.

Pixley Park: 1 large grill and 1 picnic bench.

District 3:

Mooney Grove Park: 6 large grills, 30 small grills, and 45 picnic tables.

District 4:

Ledbetter Park: 1 large grill and 1 small grill.

Kings River Park: None we are in process of building a new arbor.

District 5:

Balch Park: None as we are working on the Fuel Load Reduction Project. New concrete benches were built and installed by volunteers.

Bartlett Park: 2 large grills and 3 small grills.

Woodville Park: 1 small grill.

Exhibit E

DEPARTMENT OF THE ARMY

LEASE

No. DACW05-1-72-461

FOR PUBLIC PARK AND RECREATIONAL PURPOSES

SUCCESS LAKE, CALIFORNIA

PROJECT AREA

THE SECRETARY OF THE ARMY under authority of Section 4 of the Act of Congress approved 22 December 1944, as amended (16 U.S.C. 460d), hereby grants to County of Tulare, a political subdivision of the State of California, with its principal office at Visalia, California, a lease for a period of ten (10) years commencing on 1 April 1972 and ending on 31 March 1982, to use and occupy approximately eighty-five (85) acres of land and water areas under the primary jurisdiction of the Department of the Army in the Success Lake Project Area, hereinafter referred to as the premises as shown on attached Exhibit "A" numbered KT-1-CB, dated 14 January 1957, for public park and recreational purposes.

THIS LEASE is granted subject to the following conditions:

1. The lessee shall conform to such regulations as the Secretary of the Army may issue to govern the public use of the project area, and shall comply with the provisions of the above cited Act of Congress. The lessee shall protect the premises from fire, vandalism, and soil erosion, and may make and enforce such regulations as are necessary, and within its legal authority, in exercising the privileges granted in this lease, provided that such regulations are not inconsistent with those issued by the Secretary of the Army or with provisions of the above cited Act of Congress.

2. The lessee shall administer and maintain the premises in accordance with the U.S. Army Engineers' Master Plan and the implementing General Development Plan for the premises and with an Annual Management Program to be mutually agreed upon between the lessee and the U.S. Army District Engineer in charge of the administration of the project, which may be amended from time to time as may be necessary. Such Annual Management Program shall include, but is not limited to, the following:

- a. Plans for management activities to be undertaken by the lessee or jointly by the U.S. Army Engineers and the lessee, including improvements and other facilities to be constructed thereon.
- b. Budget of the lessee for carrying out the management activities.
- c. Personnel to be used in the management of the area.

3. The lessee shall provide the facilities and services necessary to meet the public demand either directly or through concession agreements with third parties. All such agreements shall state that they are granted subject to the provisions of this lease and that the concession agreement will not be effective until approved by the District Engineer.

4. Admission, entrance or user fees may be charged by the lessee for the entrance to or use of the premises or any facilities constructed thereon, PROVIDED, prior written approval of the District Engineer is obtained.

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PREVIOUS EDITIONS ARE OBSOLETE

EM/

...and, food (except packaged goods), and services furnished or
...shall be subject to the prior approval of the District Engineer. The les-
see shall, on or before April 15 of each year, submit to the District Engineer for ap-
proval the fees, rates and prices proposed for the following 6 months, including
justification of any proposed increase or decrease. The District Engineer will give written
notice to the lessee of his approval of or objection to any proposed fee, rate or price and
will, if appropriate, state an approved fee, rate or price for each item to which an objection
has been made. The lessee and/or its concessionaires shall keep a schedule of such fees,
rates or prices posted at all times in a conspicuous place on the leased premises.

6. All monies received by the lessee from operations conducted on the premises,
including, but not limited to, entrance and admission fees and user fees and rental or other
consideration received from its concessionaires, may be utilized by the lessee for the ad-
ministration, maintenance, operation and development of the premises. Any such monies
not so utilized, or programmed for utilization, within a reasonable time, shall be paid to the
District Engineer at the end of each 5-year period. The lessee shall establish and main-
tain adequate records and accounts and render annual statements of receipts and expendi-
tures to the District Engineer, except for annual or weekly entrance fees which also are
honored at other recreational areas operated by the lessee. The District Engineer shall
have the right to perform audits of the lessee's records and accounts, and to require the
lessee to audit the records and accounts of third party concessionaires, and furnish the
District Engineer a copy of the results of such an audit.

7. All structures shall be constructed and landscaping accomplished in accordance
with plans approved by the District Engineer. Further, the lessee shall not discharge
waste or effluent from the premises in such a manner that such discharge will contaminate
streams or other bodies of water or otherwise become a public nuisance.

8. The right is reserved to the United States, its officers, agents, and employees, to
enter upon the premises at any time and for any purpose necessary or convenient in con-
nection with river and harbor and flood control work, and to remove timber or other ma-
terial required for such work, to flood the premises when necessary, and/or to make any
other use of the land as may be necessary in connection with public navigation and flood
control, and the lessee shall have no claim for damages of any character on account thereof,
against the United States or any agent, officer or employee thereof.

9. Any property of the United States damaged or destroyed by the lessee incident to
the exercise of the privileges herein granted shall be promptly repaired or replaced by the
lessee to the satisfaction of the District Engineer.

10. The United States shall not be responsible for damages to property or injuries to
persons which may arise from or be incident to the exercise of the privileges herein
granted, or for damages to the property of the lessee, or for damages to the property or
injuries to the person of the lessee's officers, agents, servants, or employees or others who
may be on the premises at their invitation or the invitation of any one of them, arising
from or incident to the flooding of the premises by the Government or flooding from any
other cause, or arising from or incident to any other governmental activities, and the lessee
shall hold the United States harmless from any and all such claims.

11. That at the time of the commencement of this lease, the lessee will obtain from a
reputable insurance company, acceptable to the Government, liability or indemnity insur-
ance providing for minimum limits of \$ 50,000 per person in any one claim, and
an aggregate limit of \$ 150,000 for any number of persons or claims arising from
any one incident with respect to bodily injuries or death resulting therefrom, and
\$ 50,000 for damage to property suffered or alleged to have been suffered by
any person or persons resulting from the operations of the lessee under the terms of this
lease.

DEPARTMENT OF THE ARMY

12. This lease may be relinquished by the lessee at any time by giving to the Secretary of the Army, through the District Engineer, at least 30 days' notice in writing.

13. This lease may be revoked by the Secretary of the Army in the event the lessee violates any of the terms and conditions of this lease and continues and persists therein for a period of 30 days after notice thereof in writing by the District Engineer.

14. On or before the date of expiration of this lease or its relinquishment by the lessee, the lessee shall vacate the premises, remove its property therefrom, and restore the premises to a condition satisfactory to the District Engineer. If, however, this lease is revoked, the lessee shall vacate the premises, remove its property therefrom, and restore the premises as aforesaid within such time as the Secretary of the Army may designate. In either event, if the lessee shall fail or neglect to remove its property and so restore the premises, then its property shall become the property of the United States without compensation therefor, and no claim for damages against the United States or its officers or agents shall be created by or made on account thereof.

15. The lessee or its concessionaires shall not discriminate against any person or persons because of race, creed, color or national origin in the conduct of its operations hereunder. The grantee furnishes as part of this contract an assurance (Exhibit "B") that he will comply with Title VI of the Civil Rights Act of 1964 (78 Stat. 241) and Department of Defense Directive 5500.11 issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations.

16. All notices to be given pursuant to this lease shall be addressed if to the lessee, to County of Tulare, Attn: Mr. Merle Harp, Superintendent, Parks Department, Courthouse, Visalia, California, if to the Government, to the District Engineer, U. S. Army Engineer District, Sacramento, 650 Capitol Mall, Sacramento, California 95814, or as may from time to time be directed by the parties. Notice shall be deemed to have been duly given if and when inclosed in a properly sealed envelope or wrapper, addressed as aforesaid and deposited postage prepaid (or, if mailed by the Government, deposited under its franking privilege) in a post office or branch post office regularly maintained by the United States Government.

17. This lease is subject to all existing easements, and easements subsequently granted, for roadways, and utilities located or to be located on the premises, provided that the proposed grant of any easement will be coordinated with the lessee and easements will not be granted which will interfere with developments, present or proposed, by the lessee.

18. That, within the limits of their respective legal powers, the parties to the lease shall protect the project against pollution of its water. The lessee shall comply promptly with any regulations, conditions or instructions affecting the activity hereby authorized if and when issued by the Environmental Protection Agency and/or a state water pollution control agency having

Lease DACW05-1-72-461

jurisdiction to abate or prevent water pollution. Such regulations, conditions, or instructions in effect or prescribed by the Environmental Protection Agency or state agency are hereby made a condition of this lease.

19. In addition to the land areas as shown on the attached Exhibit "A," this lease shall also include the entire water area of the reservoir for the purpose of the lessee maintaining jurisdiction over the water areas for law enforcement, County boat permits, and public safety inspections. The lessee may also acquire extra water necessary to maintain minimum pool in the reservoir.

20. The lessee also agrees to mow grass, as required, in the approximate area as shown in green on the attached Exhibit "A."

IN WITNESS WHEREOF I have hereunto set my hand this 3rd day of August 1972, by direction of the Assistant Secretary of the Army.

Gordon M. Hobbs
Gordon M. Hobbs
Acting Assistant for Real Property
OASA(I&L)

The above instrument, together with the provisions and conditions thereof, is hereby accepted this 25th day of April 1972.

COUNTY OF TULARE

BY: James J. Muller
Chairman, Board of Supervisors

SUPPLEMENTAL AGREEMENT NO. 1

TO
DEPARTMENT OF THE ARMY
LEASE NO. DACW05-1-72-461
SUCCESS LAKE, CALIFORNIA

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This Supplemental Agreement No. 1, made and entered into by and between the Secretary of the Army, of the first part, and County of Tulare, a political subdivision of the State of California, with its principal office at Visalia, California, of the second part, hereinafter called the "Lessee,"

WITNESSETH THAT:

WHEREAS, on 3 August 1972 the Secretary of the Army granted Lease No. DACW05-1-72-461 to the Lessee for the use of 85 acres of land and water at Success Lake, California, for public park and recreational purposes; and

WHEREAS, Condition No. 20 of said lease states that "The Lessee also agrees to mow grass, as required, in the approximate area as shown in green on the attached Exhibit 'A';" and

WHEREAS, because of a reduction of Lessee maintenance personnel at Success Lake to maintain the leased premises, Lessee no longer is able to perform the grass mowing obligation of said Condition No. 20; and

WHEREAS, the Secretary of the Army has no objections to the Lessee no longer fulfilling said grass mowing obligation;

NOW, THEREFORE, it is mutually agreed by the said parties that Lease No. DACW05-1-72-461 be and the same is hereby modified in the following particulars:

Condition No. 20 of said lease is hereby deleted therefrom.

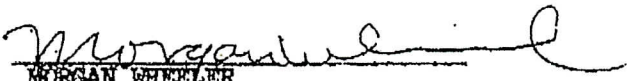
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TULARE COUNTY AGREEMENT NO. 7706-A

S/A No. 1 to Lease No. DACWO5-1-72-461

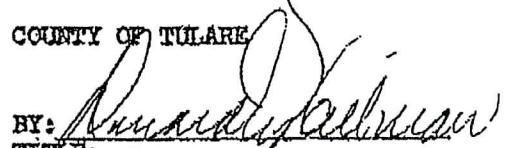
Said lease is modified in the above particular only and all other provisions and conditions thereof not heretofore modified shall remain binding and in full force and effect. The above modification shall henceforth be considered a part of said lease as if fully and completely written therein.

IN WITNESS WHEREOF, I have hereunto set my hand by authority of the Secretary of the Army this 15th day of August 1977.


MORGAN WHEELER
Chief, Real Estate Division
US Army Engineer District, Sacramento

This Supplemental Agreement No. 1 is hereby executed by the Lessee this 19th day of July 1977.

COUNTY OF TULARE

BY: 
TITLE: Chairman, Board of Supervisors

ATTEST: JAY C. BAYLESS, County Clerk and Ex-officio Clerk of the Board of Supervisors of the County of Tulare

By Carol Santos
Deputy

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SUPPLEMENTAL AGREEMENT NO. 2
TO
DEPARTMENT OF THE ARMY
LEASE NO. DACW05-1-72-461
SUCCESS LAKE, CALIFORNIA

This Supplemental Agreement No. 2 entered into by and between the Secretary of the Army of the first part, and the County of Tulare, a political subdivision of the State of California, with its principal office at Visalia, California of the second part, hereinafter called the "Lessee",

WITNESSETH THAT:

WHEREAS, on the 3rd day of August 1972, the Secretary of the Army and the Lessee entered into Lease No. DACW05-1-72-461 for the Lessee's use of approximately 35 acres of land and water areas at Success Lake, California for Public Park and recreational purposes for a period of 10 years commencing 1 April 1972, and

WHEREAS, the Lessee has requested that the lease be extended or rewritten for a 25-year period dating from 1 May 1981 to qualify for funds from the 1976 State Park Bond Act of California, and

WHEREAS, the Secretary of the Army has no objections to such extension or rewriting of the lease:

NOW, THEREFORE, in consideration of the premises, it is mutually agreed by and between the parties hereto that the said lease is hereby modified in the following particular effective as of 1 May 1981:

The granting clause is hereby revised to show the lease to be in effect for a 25-year period beginning 1 May 1981 and ending 30 April 2006.

Said lease is modified in the above particular only, and all other provisions thereof not heretofore modified shall remain binding and in full force and effect. The above modification shall henceforth be considered part of said lease as if fully and completely written therein.

TULARE COUNTY AGREEMENT NO. 7704-B
PAGE 04

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Supplemental Agreement No. 2
to Lease No. DACW05-1-72-461

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of
June 1981, by direction of the Assistant Secretary of the
Army (IL&FM).

S/ Gordon M. Hobbs
Gordon M. Hobbs
Assistant for Real Property
OASA (IL&FM)

This Supplemental Agreement No. 2 is hereby executed by the lessee this
14th day of April 1981.

ATTEST:
Clerk of the Board of
Supervisors.

By [Signature]
Deputy



COUNTY OF TOLARE

BY: [Signature]
TITLE: Chairman, Board of Supervisors

#5

SUPPLEMENTAL AGREEMENT NO. 3
TO
DEPARTMENT OF THE ARMY LEASE NO. DACW05-1-72-461
SUCCESS LAKE
TULARE COUNTY, CALIFORNIA

THIS THIRD SUPPLEMENTAL AGREEMENT TO DEPARTMENT OF THE ARMY LEASE NO. DACW05-1-72-461, dated August 3, 1972, is made by and between the DEPARTMENT OF THE ARMY ("Secretary") and the COUNTY OF TULARE, a political subdivision of the State of California, with its principal office at Visalia, California ("Grantee"). The Secretary and Grantee are sometimes referred to herein individually as a "Party" and collectively as the "Parties".

WITNESSETH THAT:

WHEREAS, the term of the Lease Agreement expired on April 30, 2006, and the Secretary permitted Grantee to hold over under the terms and conditions of the Original Lease Agreement from May 1, 2006 through August 2, 2011; and

WHEREAS, the Parties now desire to extend the term of the Lease.

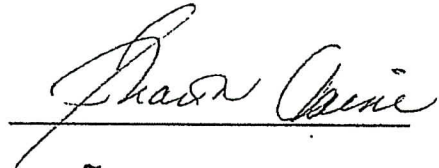
NOW, THEREFORE, it is mutually agreed by and between said Parties that Department of the Army Lease No. DACW05-1-72-461 is hereby modified in the following particular:

1. The term of the Lease is extended for twenty-five (25) years, commencing on August 3, 2011 through and including August 2, 2036.

Said Lease is modified in the above particular only, and all other conditions thereof shall remain binding and in full force and effect. This Supplemental Agreement shall henceforth be considered a part of the said easement as if fully and completely written therein.


17 IN WITNESS WHEREOF, I have hereunto set my hand by authority of the Secretary of the Army this day of OCTOBER, 2011.

DEPARTMENT OF THE ARMY

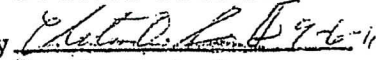

Sharon Caine
Chief, Real Estate Division
U.S. Army Engineer District, Sacramento

THIS SUPPLEMENTAL AGREEMENT NO. 3 to Department of the Army Lease No. DACW05-1-72-461, is hereby executed by the grantee this 4th day of OCTOBER, 2011.

COUNTY OF TULARE


Signature
MIKE ENNIS
Name
CHAIRMAN, BOARD OF SUPERVISORS
Title

APPROVED AS TO FORM:
COUNTY COUNSEL

By 
Deputy 10/11/11

TULARE COUNTY AGREEMENT NO. 7706-C